Delaware Medical Journal

Official Publication of the Medical Society of Delaware

ESTABLISHED 1776 · INCORPORATED 1789

MARCH, 1960...

VA HOSPITAL ISSUE

more penicillin to fight infection

V-CILLIN K®

(penicillin V potassium, Lilly)

consistently absorbed to produce high levels of antibacterial activity

In tablets of 125 and 250 mg.

ELI LILLY AND COMPANY • INDIANAPOLIS 6, INDIANA, U.S.A.

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1960 ANNUAL MEETING

Rehoboth — September 9, 10, 11

allergen on rye

when that delectable snack boomerangs

BENADRYL®

antihistaminic-antispasmodic

gives prompt, comprehensive relief

In food sensitivity, BENADRYL provides simultaneous, dual control of allergic symptoms. Gastrointestinal spasm, plus the cutaneous and respiratory symptoms associated with food allergy are favorably affected by the *antihistaminic action* of BENADRYL. Concurrently, its *antispasmodic effect* alleviates colicky pain, nausea and vomiting. This duality of action makes BENADRYL equally valuable throughout the entire spectrum of allergic disorders.

BENADRYL Hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a variety of forms including: Kapseals,® 50 mg. each; Kapseals, 50 mg., with ephedrine sulfate, 25 mg.; Capsules, 25 mg. each; Elixir, 10 mg. per 4 cc.; and for delayed action, Emplets,® 50 mg. each. For parenteral therapy, BENADRYL Hydrochloride Steri-Vials,® 10 mg. per cc.; and Ampoules, 50 mg. per cc.

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Delaware Medical Journal

Official Publication of the Medical Society of Delaware

EDITORIAL AND BUSINESS OFFICES
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Associate & Managing Editor

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Assistant Editor

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CONTENTS

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NOW many more hypertensive patients may have THE FULL BENEFITS OF CORTICOSTEROID THERAPY

Except for one case of mild blood-pressure elevation (150/90) **no hypertension was seen in any of 1500 patients†** as a result of treatment with DECADRON—the new and, on a milligram basis, most potent of all corticosteroids. **Hypertension induced by other steroids diminished or disappeared.**

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Decadron* DEXAMETHASONE

treats more patients more effectively

†Analysis of clinical reports.

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brand of phenylbutazone

in arthritis and allied disorders

proved by a decade of experience

Ten years of experience in countless cases—more than 1700 published reports—have now established the eminence of Butazolidin among the potent non-hormonal antiarthritic agents.

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Within 24 to 72 hours produces striking relief of pain.
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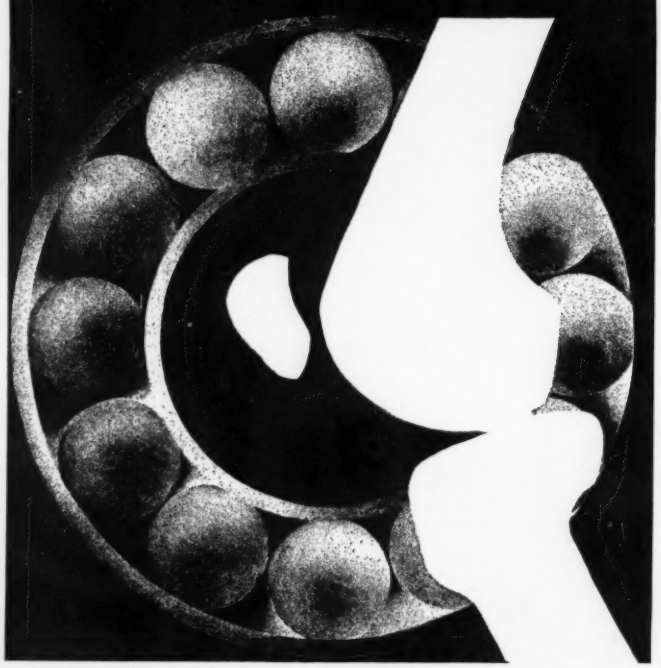
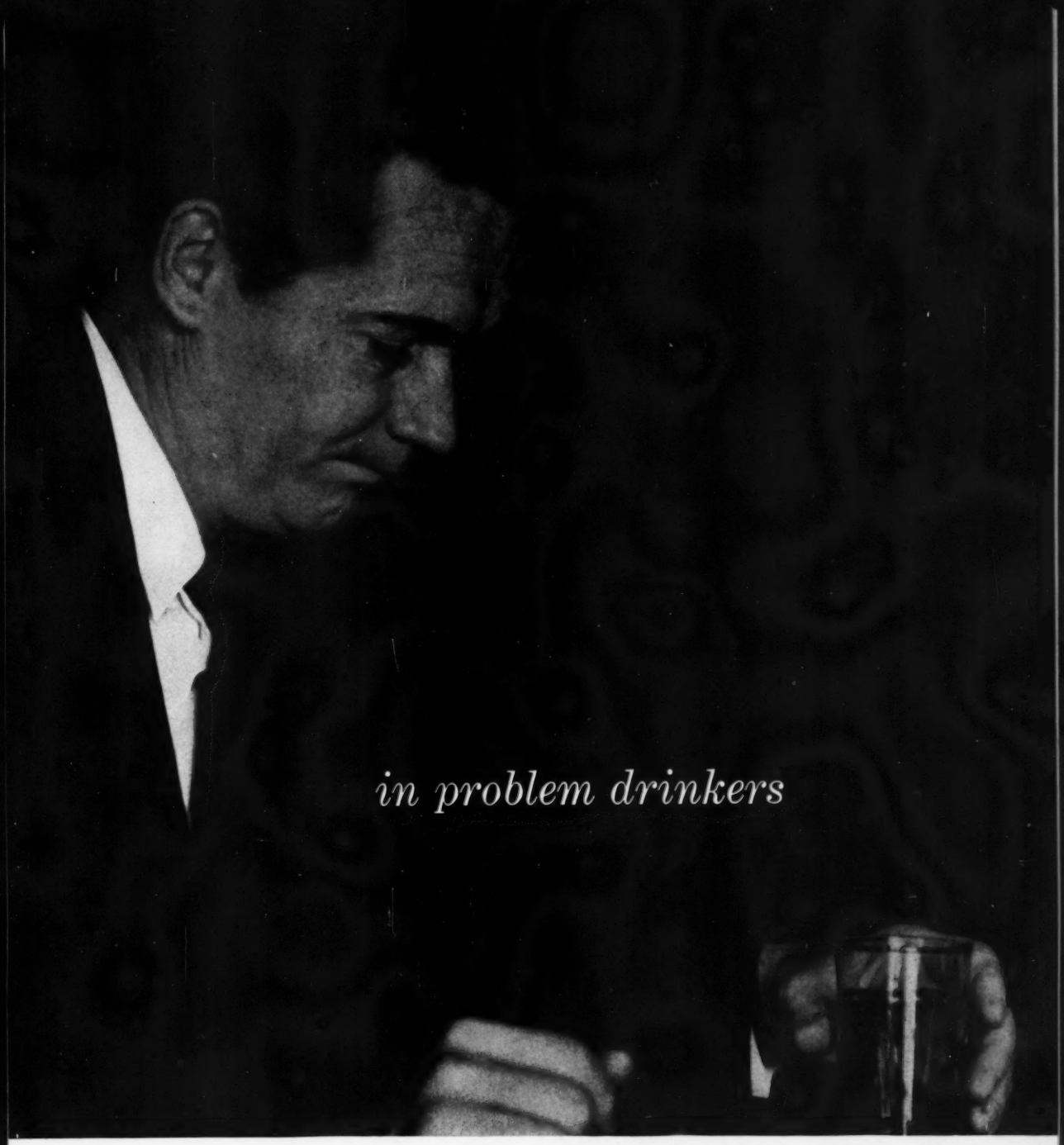
Butazolidin® brand of phenylbutazone: Red-coated tablets of 100 mg.
Butazolidin® Alka: Capsules containing Butazolidin® 100 mg.; dried aluminum hydroxide gel 100 mg.; magnesium trisilicate 150 mg.; homatropine methylbromide 1.25 mg.

Geigy, Ardsley, New York



Geigy

BU 7-60



Vistaril®

hydroxyzine pamoate

dispels tension...
maintains tranquility

When tension and anxiety "drive him to drink," the problem drinker often finds that VISTARIL, by maintaining tranquility, restores perspective and helps him accept counsel more readily.

VISTARIL has demonstrated a wide margin of safety even in large doses (300-400 mg. daily) over prolonged periods. Clinical studies of alcoholism have shown that VISTARIL produces no significant depression of blood pressure, pulse rate, or respiration in chronic drinkers.

Capsules—25, 50, and 100 mg. *Parenteral Solution* (as the HCl)—25 mg. per cc., 10 cc. vials and 2 cc. Steraject® Cartridges; 50 mg. per cc., 2 cc. ampules.

Professional literature available on request from the Medical Department, Pfizer Laboratories, Div., Chas. Pfizer & Co., Inc., Brooklyn 6, New York

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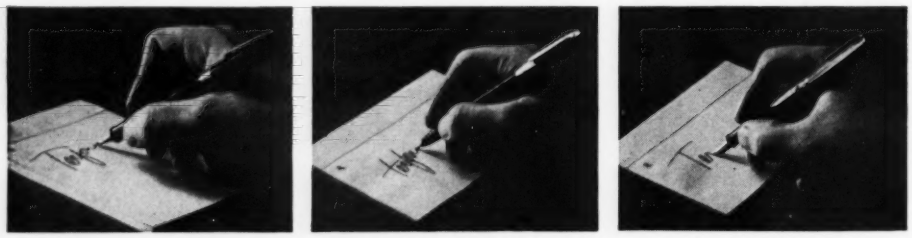
more and more physicians are prescribing this triple sulfa



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Squibb Triple Sulfas (Trisulfapyrimidines)

Clinical experience continues to prove that TERFONYL provides many special advantages fundamental to successful antibacterial therapy.

• specificity for a wide range of organisms • superinfection rarely encountered • soluble in urine through entire physiologic pH range • minimal disturbance of intestinal flora • excellent diffusion throughout tissues • readily crosses blood-brain barrier • sustained therapeutic blood levels • extremely low incidence of sensitization

SUPPLY: Tablets, 0.5 gm. • Suspension, raspberry flavored, 0.5 gm. per teaspoonful (5cc.).

SQUIBB *Squibb Quality—the Priceless Ingredient*

"TERFONYL"® IS A SQUIBB TRADEMARK

Synonyms for Pain Relief...

'TABLOID'

'EMPIRIN' COMPOUND®

Acetophenetidin ..... gr. 2½
Acetylsalicylic Acid .... gr. 3½
Caffeine ..... gr. ½

'TABLOID'

'EMPIRIN' COMPOUND® WITH CODEINE PHOSPHATE*

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Acetylsalicylic Acid .... gr. 3½
Caffeine ..... gr. ½
Codeine Phosphate .... gr. ⅛

No. 2
Acetophenetidin ..... gr. 2½
Acetylsalicylic Acid .... gr. 3½
Caffeine ..... gr. ½
Codeine Phosphate .... gr. ¼

No. 3
Acetophenetidin ..... gr. 2½
Acetylsalicylic Acid .... gr. 3½
Caffeine ..... gr. ½
Codeine Phosphate .... gr. ½

No. 4
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Acetylsalicylic Acid .... gr. 3½
Caffeine ..... gr. ½
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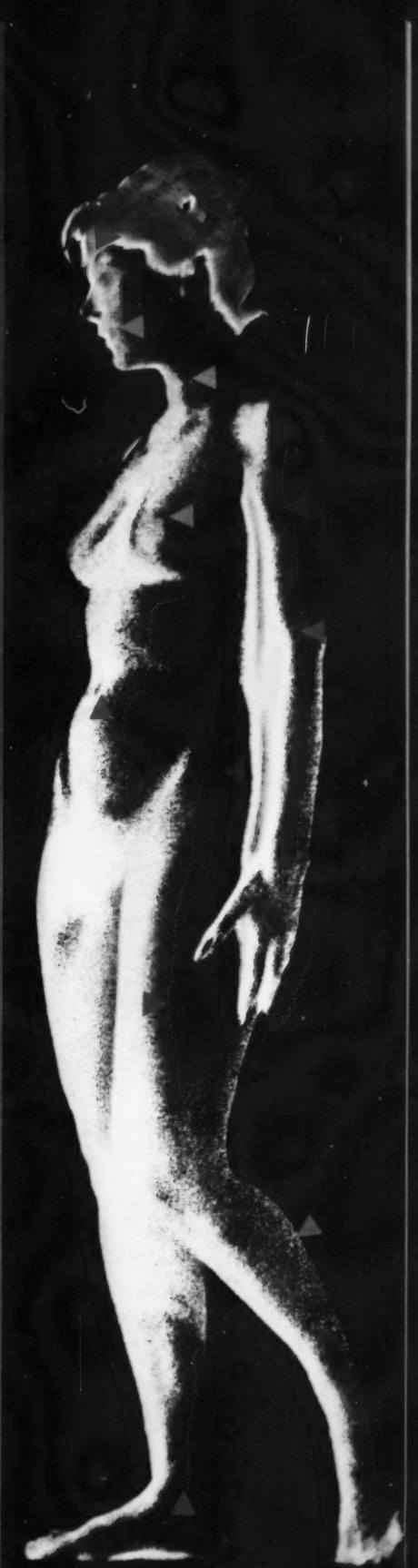
*Subject to Federal Narcotic Regulations

...providing the desired gradation of potencies for relief of varying intensities of pain

IN
simple headache
rheumatic conditions
arthralgias
myalgias
common cold
toothache
earache
dysmenorrhea
neuralgia
minor trauma
tension headache
premenstrual tension
minor surgery
post-partum pain
trauma
organic disease
neoplasm
muscle spasm
colic
migraine
musculo-skeletal pains
postdental surgery
post-partum involution
fractures
synovitis/bursitis

relief of pain of all degrees of severity up to that which requires morphine

AND IN
fevers
dry, unproductive coughs



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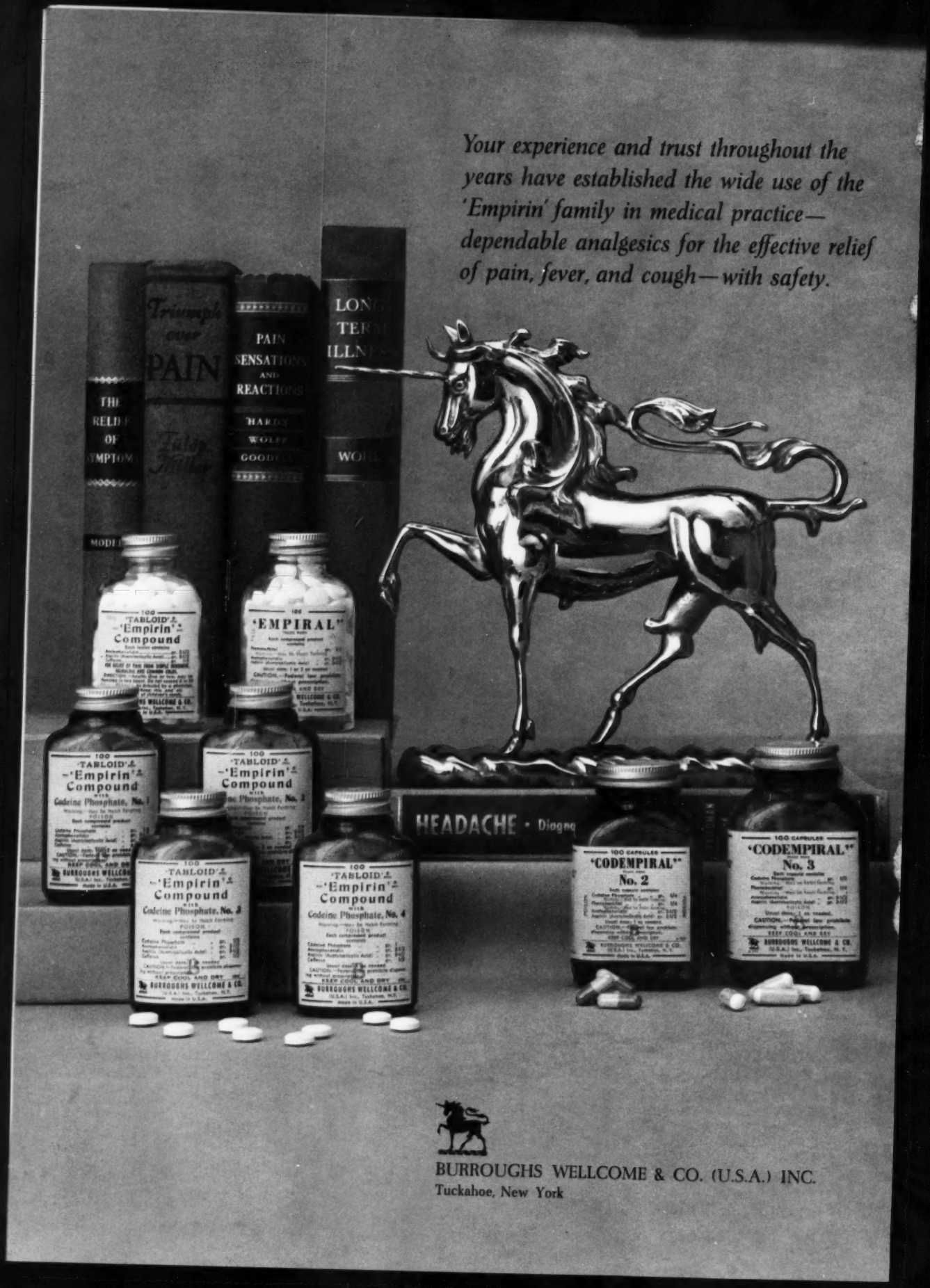
Your experience and trust throughout the years have established the wide use of the 'Empirin' family in medical practice—dependable analgesics for the effective relief of pain, fever, and cough—with safety.
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PAIN SENSATIONS AND REACTIONS
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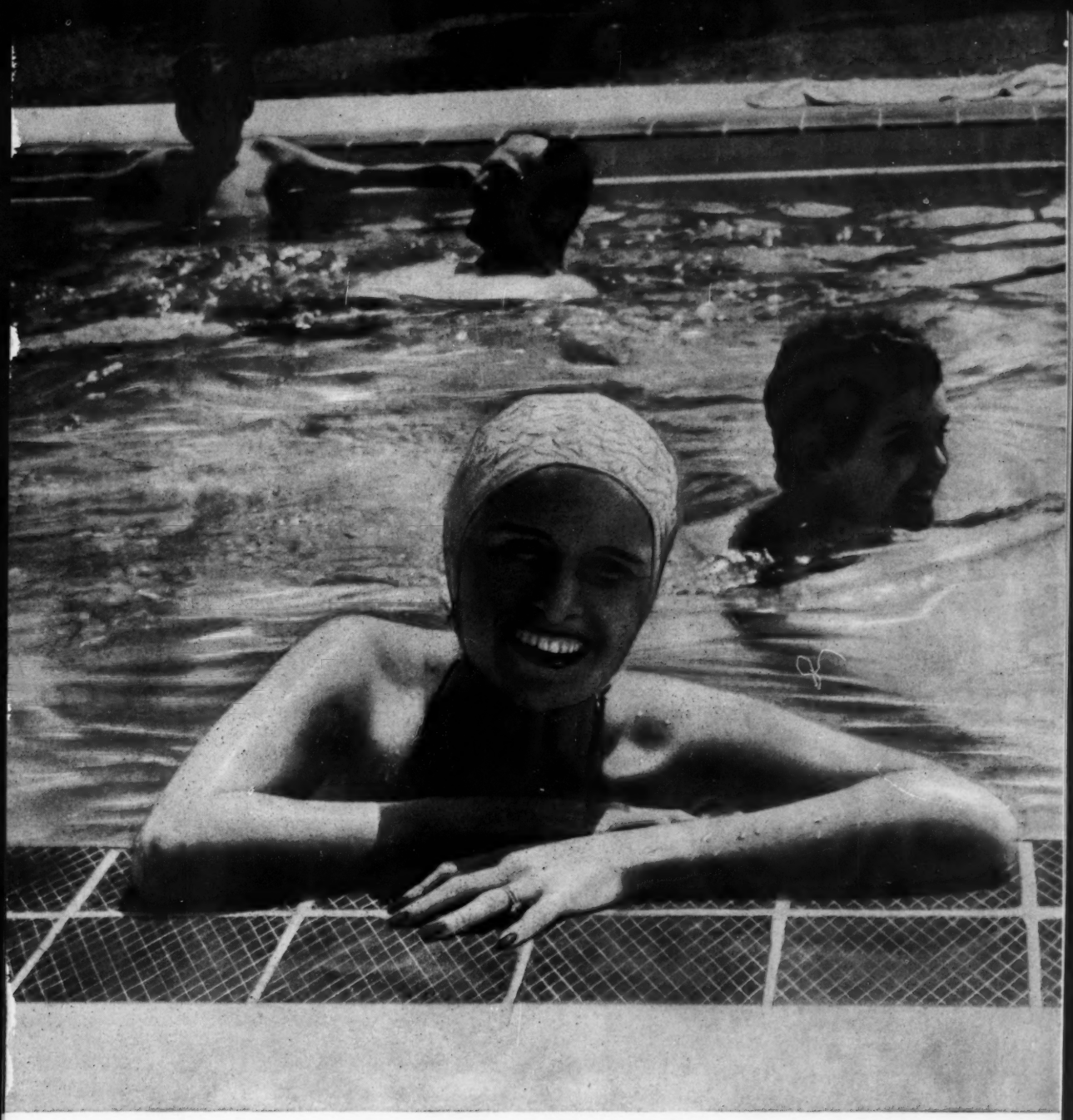

Of course, women like "Premarin"®

THERAPY for the menopause syndrome should relieve not only the psychic instability attendant the condition, but the vasomotor instability of estrogen decline as well. Though they would have a hard time explaining it in such medical terms, this is the reason women like "Premarin."

The patient isn't alone in her devotion to this natural estrogen. Doctors, husbands, and family all like what it does for the patient, the wife, and the homemaker.

When, because of the menopause, the psyche needs nursing—"Premarin" nurses. When hot flushes need suppressing, "Premarin" suppresses. In short, when you want to treat the whole menopause, (and how else is it to be treated?), let your choice be "Premarin," a complete natural estrogen complex.

"Premarin," conjugated estrogens (equine), is available as tablets and liquid, and also in combination with meprobamate or methyltestosterone.

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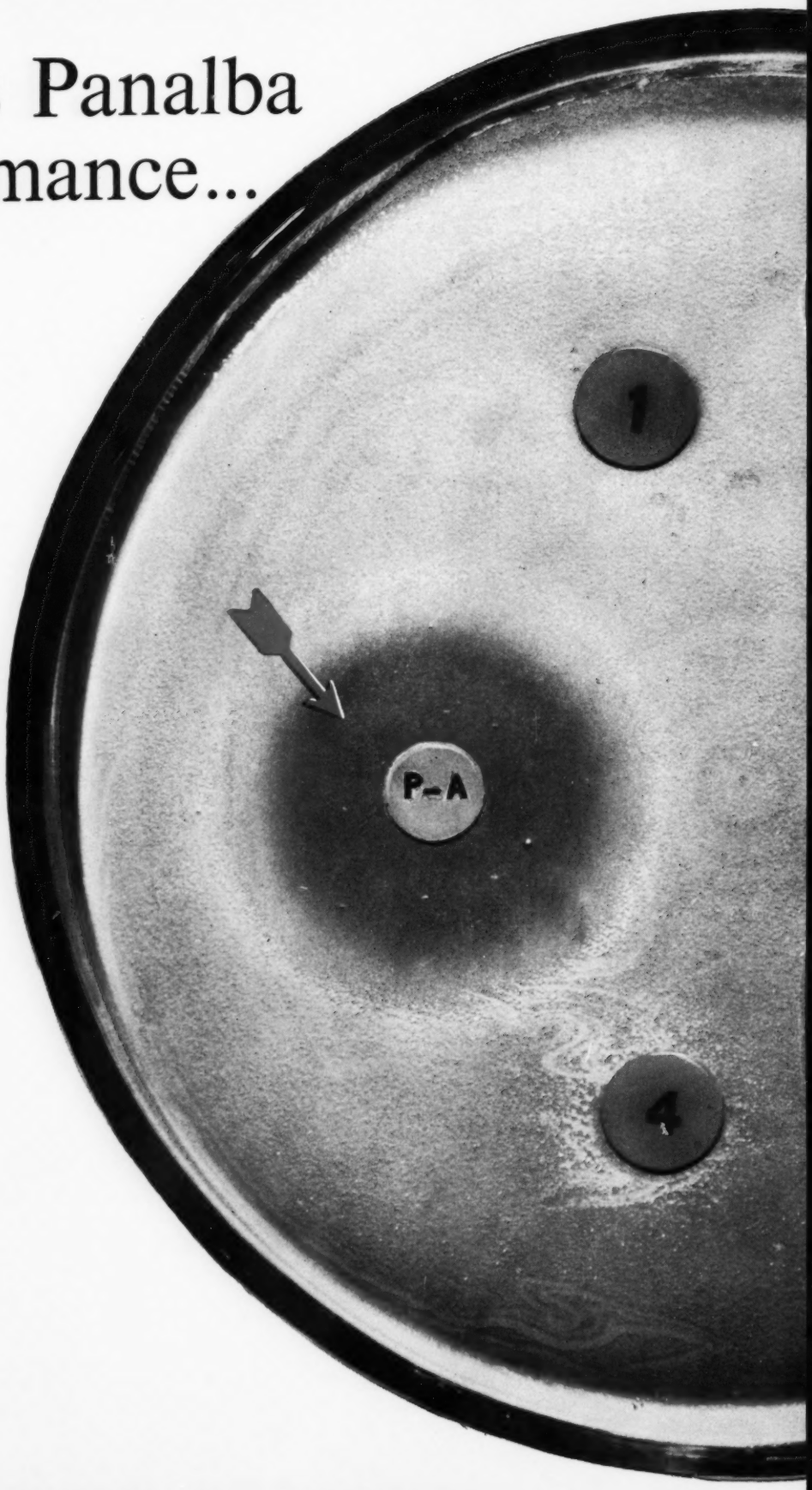
5854

This is Panalba performance...



in pneumonia

. . . into a mixed culture of the three organisms commonly involved in pneumonia . . . *K. pneumoniae*, *Diplococcus pneumoniae*, and *Staphylococcus aureus* (in this case a resistant strain) . . . we introduce the five most frequently used antibiotics.

Twenty-four hours later (in this greatly enlarged photograph), note that only *one* of the five leading antibiotics has stopped *all* the organisms, including the resistant staph! This is Panalba.

In your next pneumonia patient . . . in *all* your patients with potentially-serious infections . . . provide this extra protection with your prescription:

Dosage—1 or 2 capsules 3 or 4 times a day.
Supplied—Capsules containing Panmycin phosphate equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin as novobiocin sodium, in bottles of 16 and 100.
Now available: **new Panalba Half-Strength Capsules in bottles of 16 and 100.**

Panalba*

(Panmycin* Phosphate plus Albamycin*)

The broad-spectrum antibiotic of *first* resort

Upjohn The Upjohn Company Kalamazoo, Michigan

*TRADEMARK, REG. U. S. PAT. OFF.

proven successful in almost every case of

skin itch

and

dryness

Used in the bath SARDO releases millions of microfine water-dispersible globules* to provide a soothing, softening suspension which enhances your other therapy. SARDO baths . . .

1 **rehydrate the dry, itchy, scaly skin**

2 **add comfort to the therapeutic care**

3 **act to measurably increase natural emollient skin oil**

4 **minimize loss of natural oil and excessive moisture with a fine non-occlusive film**

Patients will appreciate pleasant, convenient, easy to use, pine-scented SARDO. Non-sensitizing. Most economical. Bottles of 4, 8 and 16 oz.

1. Spoor, H. J.: N. Y. State J. Med. Oct. 15, 1958

Sardo®
in the bath

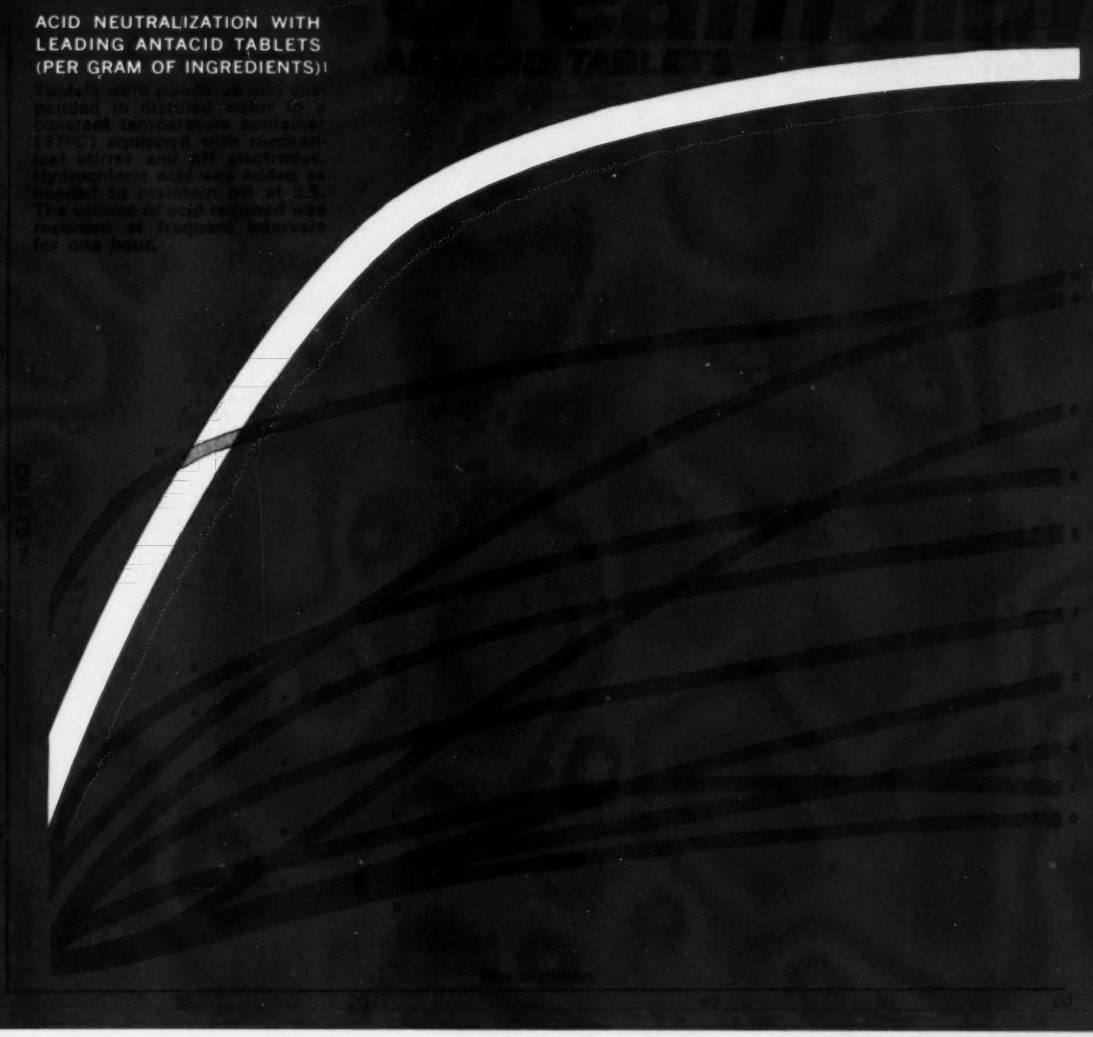
for atopic dermatitis
eczematoid dermatitis
senile pruritus
contact dermatitis
soap dermatitis

Samples and literature yours for the asking.

Sardeau, Inc. 75 East 55th Street New York 22, N. Y.

© 1959 *Patent Pending, T.M.

More gastric acid neutralized faster...with new Creamalin



GREATLY HEIGHTENED REACTIVITY to acid characterizes the action of New Creamalin Antacid Tablets.[1,2] They act faster and longer than other leading tablets and neutralize considerably more acid.[1] These tablets provide virtually the same effects as a liquid[2] with the convenience of a tablet. New Creamalin tablets give faster, greater and more prolonged relief.

NOT CONSTIPATING, New Creamalin Antacid Tablets will not produce "acid rebound" or alkalosis. They have a pleasant taste.

Creamalin, trademark reg. U. S. Pat. Off.

EACH NEW CREAMALIN ANTACID TABLET contains 320 mg. of specially processed, highly reactive, short polymer dried aluminum hydroxide gel (stabilized with hexitol), with 75 mg. of magnesium hydroxide.

Adult dosage: Gastric hyperacidity—2 to 4 tablets as necessary. Peptic ulcer or gastritis—2 to 4 tablets every two to four hours. Tablets may be chewed, swallowed whole with water or milk, or allowed to dissolve in the mouth.

How Supplied: Bottles of 50, 100, 200 and 1000.

1. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:380, July, 1959. 2. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: *J. Am. Pharm. A. (Scient. Ed.)* 48:384, July, 1959.

Winthrop
LABORATORIES
New York 18, N. Y.

FOR PEPTIC ULCER • GASTRITIS • GASTRIC HYPERACIDITY

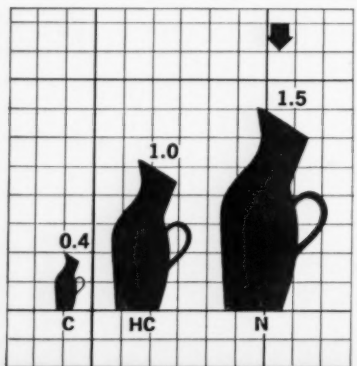
more closely approaches the ideal diuretic

Naturētin

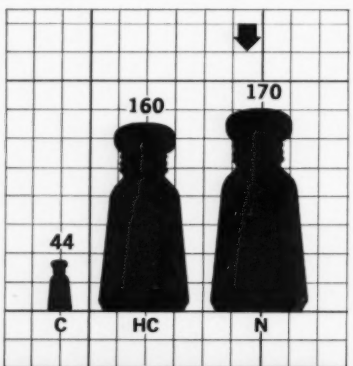
Squibb Benzydroflumethiazide

"When compared to other members of this heterocyclic group of compounds, this drug [NATURETIN] shows a significantly increased natriuresis and decreased loss of potassium and bicarbonate. In this respect it more closely approaches a natural or 'ideal diuretic.' It is effective upon continuous administration and causes no significant serum biochemical changes. It is effective in a wide variety of edematous and hypertensive states and represents a significant advance in diuretic therapy." *Ford, R.V.: Pharmacological observations on a more potent benzothiadiazine diuretic; accepted for publication by the American Heart Journal.*

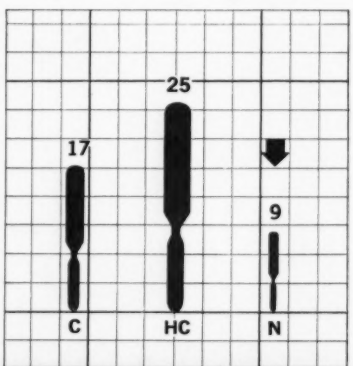
Comparison of electrolyte excretion pattern for the 24 hours following typical doses of chlorothiazide, hydrochlorothiazide, and Naturetin[1]



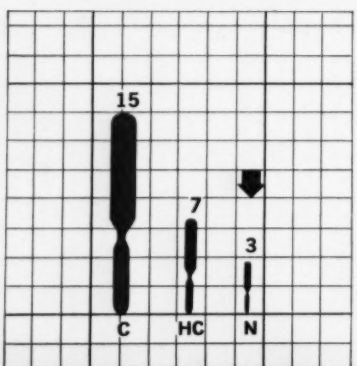
Urinary Volume (liters)
significantly increased
with Naturetin



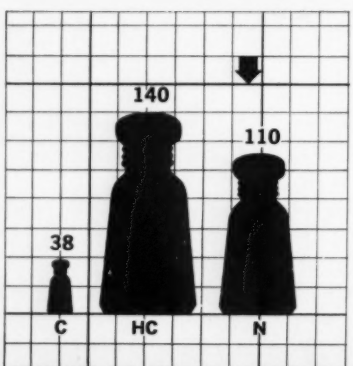
Natriuresis (mEq./24 hr.)
sodium excretion significantly
increased with Naturetin



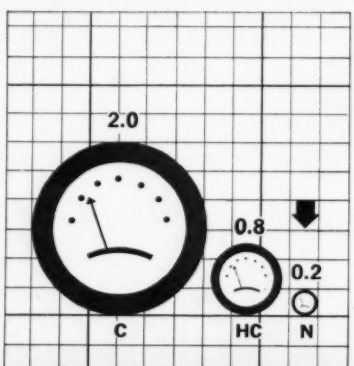
Potassium Excretion
(mEq./24 hr.)
least with Naturetin



Bicarbonate Excretion
(mEq./24 hr.)
least with Naturetin



Chloride Excretion
(mEq./24 hr.)
marked increases



Urinary pH
least increase with Naturetin

Typical Doses: Chlorothiazide—1,000 mg.; Hydrochlorothiazide—50 mg.; Naturetin (Benzydroflumethiazide)—5 mg.

Adapted from: Ford, R. V., Squibb Clin. Res. Notes 2:1 (Dec.) 1959.

A single 5 mg. tablet once a day provides all these advantages[2]

- prolonged action — in excess of 18 hours
- convenient once-a-day dosage
- low daily dosage — more economical for the patient
- no significant alteration in normal electrolyte excretion pattern
- repetitively effective as a diuretic and antihypertensive
- greater potency mg. for mg.—more than 100 times as potent as chlorothiazide
- potency maintained with continued administration
- low toxicity — few side effects — low salt diets not necessary
- comparative studies with chlorothiazide, hydrochlorothiazide, and Naturetin disclose that smallest doses of Naturetin produce greater weight loss per day
- in hypertension, Naturetin, alone or in combination with other antihypertensives, produces significant decreases in mean blood pressure and other favorable clinical effects
- purpura and agranulocytosis not observed
- allergic reactions rarely observed

[2]Reports (1959) to the Squibb Institute for Medical Research.

Naturētin —*Indications:* in control of edema when diuresis is required, in congestive heart failure, in the premenstrual syndrome, nephrosis and nephritis, cirrhosis with ascites, edema induced by drugs (certain steroids); in the management of hypertension, used alone, combined with Raudixin (Squibb Rauwolfia Serpentina Whole Root), or with other antihypertensive drugs, such as ganglionic blocking agents.

Contraindications: none, except in complete renal shutdown.

Precautions: when Naturetin is added to an antihypertensive regimen including hydralazine, veratrum, and/or ganglionic blocking agents, immediate reduction must be made in the dosage for all preparations; the dosage for ganglionic blocking agents must be decreased by 50% to avoid a precipitous drop in blood pressure. This also applies if these hypotensive drugs are added to an established Naturetin regimen . . . in hypochloremic alkalosis with or without hypokalemia . . in cirrhotic patients or those on digitalis therapy when reductions in serum potassium are noted . . in diabetic patients or those predisposed to diabetes . . . when increased uric acid concentrations are noted . . . when signs—leg or abdominal cramps, pruritus, paresthesia, rash—suggestive of hypersensitivity, are noted.

Naturētin —*Dosage: in edema,* average dose, 5 mg., once daily, preferably in the morning; to initiate therapy, up to 20 mg., once daily or in divided doses; for maintenance, 2.5 to 5.0 mg., daily in a single dose. *In hypertension:* suggested initial dose, 5 to 20 mg. daily; for maintenance, 2.5 to 15 mg. daily, depending on the individual response of the patient. When Naturetin is added to an antihypertensive regimen with other agents, lower maintenance doses of each drug should be used.

Naturētin —*Supplied:* tablets of 2.5 mg. and 5 mg. (scored).

SQUIBB

Squibb Quality—
the Priceless
Ingredient

Rx Naturetin 5mg.
Disp. #30
Sig: 1 each morning

'RAUDIXIN'® AND 'NATURETIN' ARE SQUIBB TRADEMARKS.

51 to 49...it's a boy!

94 to 6 BONADOXIN® stops morning sickness

When she asks "Doctor, what will it be?" you can either flip a coin or point out that 51.25% births are male.[1] But when she mentions morning sickness, your course is clear: BONADOXIN.

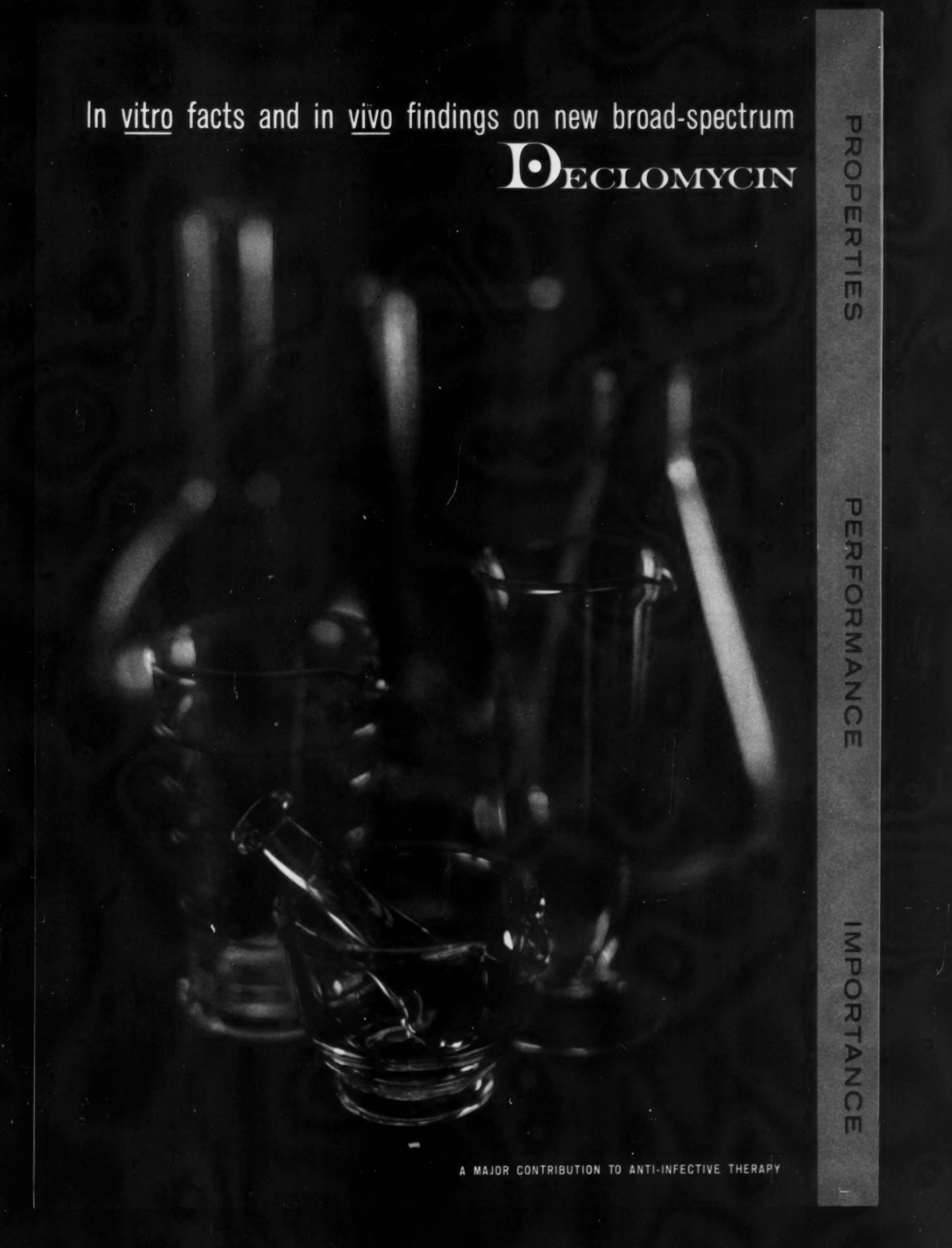
For, in a series of 766 cases of morning sickness, seven investigators report excellent to good results in 94%.[2] More than 60 million of these tiny tablets have been taken. The formula: 25 mg. Meclizine HCl (for antinauseant action) and 50 mg. Pyridoxine HCl (for metabolic replacement). Just one tablet the night before is usually enough.

BONADOXIN—DROPS and Tablets—are also effective in infant colic, motion sickness, labyrinthitis, Meniere's syndrome and for relieving the nausea and vomiting associated with anesthesia and radiation sickness. See PDR p. 795.

1. Projection from Vital Statistics, U.S. Government Dept. HEW, Vol. 48, No. 14, 1958, p. 398.
2. Modell, W.: Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347.

Roerig Rx

New York 17, New York
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being


In vitro facts and in vivo findings on new broad-spectrum
DECLOMYCIN
PROPERTIES
PERFORMANCE
IMPORTANCE
A MAJOR CONTRIBUTION TO ANTI-INFECTIVE THERAPY

PROPERTIES:

Greater inhibitory action ... lower daily intake than other tetracyclines

A unique new fermentation product of *Streptomyces aureofaciens,* DECLOMYCIN Demethylchlortetracycline achieves notably greater antibiotic activity against infections[2,4,7,8,10,14,19,20,24] because of two basic factors: (1) inherent potency, and (2) greater stability in most body fluids.[15,17,18,27] Actual clinical activity has, in many instances, been better than expected on the basis of *in vitro* sensitivity tests.[14,18,19]

Broad-spectrum control ... with far less antibiotic

Activity levels of DECLOMYCIN Demethylchlortetracycline are higher than those of previous broad-spectrum antibiotics. Hardier strains of various organisms appear to be somewhat more responsive.[4] Apparently some strains of Pseudomonas, Proteus and *A. aerogenes,* frequently refractory to therapy, are sensitive to DECLOMYCIN.[7,25,25,26]

DECLO

PROPERTIES

Sustained peak activity ...greater security of control

Prolonged retention and compatibility of DECLOMYCIN with body fluids provides peak activity between doses.[15,17,18,27] Inhibition of bacteria is more constant.

24-48 hours extra activity...protection against relapse

DECLOMYCIN maintains effective antimicrobial action for one to two days after stopping dosage.[7,14] Resurgence of a few viable pathogens, with relapse...and low patient defense against secondary bacterial invasion during the first post-therapy days... are largely offset.

MYCIN®

Demethylchlortetracycline Lederle

PERFORMANCE

Susceptibility Tests

Roberts, M. S., *et al.*[25]
New York, N. Y.

Pre-treatment sensitivity tests in 75 genitourinary patients showed DECLOMYCIN Demethylchlortetracycline to be superior against the large majority of organisms and in no instance inferior to tetracycline. DECLOMYCIN apparently has more effective coverage... several strains of *Proteus* and *A. aerogenes* responded.

Tolerance & Toxicity

Boger, W. P., and Gavin, J. J.[2]
Norristown, Pa.

Administration of the recommended 600 mg. (4 capsules) daily for 30 days to a small group of elderly patients revealed no hematologic, hepatic and urinary alteration or other abnormal finding. No clinical side effects were observed.

Gonococcal Infection

Marmell, M., and Prigot, A.[20]
New York, N. Y.

All except two of 63 patients with acute gonorrhea responded promptly to therapy with DECLOMYCIN. Fifteen received 250 mg. q.i.d. for one day, the remainder received 600 or 750 mg. in divided doses over one or two days. No side effects.

General Medicine

Lichter, E. A., and Sobel, S.[19]
Chicago, Ill.

One hundred and sixty-nine patients with various infections showed generally equivalent response to four dosage regimens, including the recommended level. Of 29 pneumococcal pneumonias, all recovered with 15 afebrile in 48 hours or less – except a few patients with preterminal underlying disease. All 42 scarlet fever patients recovered with 32 afebrile in 48 hours or less. Other patients also responded satisfactorily with few exceptions. No blood, liver or kidney toxicity found. G.I. side effects occurred in only 2 per cent at the recommended dosage, or less, and were easily reversible.

Respiratory Infection

Perry, D. M., *et al.*[22]
Seattle, Wash.

Good or fair response in 24 of 30 cases of acute bacterial pneumonia, and in all of six cases of acute bronchitis. Side effects occurred at higher dosage but were uniformly absent when dosage was limited to 600 mg. per day.

Various Infections

Finland, M., *et al.*[7]
Boston, Mass.

Eighty patients with various infections were treated with DECLOMYCIN Demethylchlortetracycline and an equal number with tetracycline. Therapeutic response was indistinguishable between the two groups. However, DECLOMYCIN Demethylchlortetracycline dosage was much lower (50 to 60 per cent of that of tetracycline.) In addition, incidence of side effects with demethylchlortetracycline was only half that experienced with tetracycline.

Pyelonephritis

Vineyard, J. P., *et al.*[29]
Dallas, Tex.

Therapy with DECLOMYCIN was successful in 12 of 13 patients with pyelonephritis. Sterile cultures were obtained in nine patients within six to 14 days. Among the organisms suppressed were strains of *A. aerogenes, E. coli* and paracolon bacillus. In most cases, DECLOMYCIN was used jointly with another antibiotic.

Soft Tissue Infection

Prigot, A., *et al.*[24]
New York, N. Y.

DECLOMYCIN was used alone or auxiliary to surgical measures in 150 cases of acute soft tissue infection, mostly ambulatory. Full resolution of infection was achieved in all cases, average length of treatment being six days. Dosage was 600 or 750 mg. daily. Side effects consisted of transitory G.I. disturbances in three cases.

DECLO

Urinary Infection

Trafton, H. M., and Lind, H. E.[28]
Brookline, Mass.

Clinical response was favorable in a majority of 50 cases of urinary tract infections with relief of symptoms, elimination, or marked reduction, of pyuria and with urine sterilization in some. DECLOMYCIN Demethylchlortetracycline was administered in one-half to one-third the daily milligram level of related antibiotics, for 8 days.

No significant diarrhea occurred in any case although mild nausea and upper G.I. symptoms were fairly common. Phototoxicity occurred in six cases.

Antibiotic-Resistant Infections

Compilation of reports of 210 clinical investigators.[23]

In 570 treated for a great variety of infections, DECLOMYCIN was successful in resolving infection or in effecting marked improvement in 81 per cent, after failure of other antibiotics.

Pediatric Infection

Fujii, R., *et al.*[9]
Tokyo, Japan

Therapeutic results, elicited in 309 pediatric patients with average daily dosage of 15 mg./kg., were equal to those produced by 30 mg./kg. of buffered tetracycline preparations. Satisfactory results were obtained in 75 per cent. No appreciable side effects when 15 mg./kg./day dosage was not exceeded.

Pediatric Infection

Hall, T. N.[12]
San Francisco, Cal.

All eight cases of ophthalmic, respiratory or otic infection responded to four to twelve days of DECLOMYCIN therapy (5 recovered, 2 greatly improved, 1 improved). One skin reaction, in a case receiving the higher trial dosage of 7 mg./lb. daily, occurred.

Pneumonias

Duke, C. J., *et al.*[5]
Washington, D. C.

Results were satisfactory in all 32 cases of acute bacterial penumonia, excepting for two caused by non-susceptible organisms. Over half had been complicated by pleural, suppurative, bronchial, or underlying structural lung problems. Dosage was low. No toxicity found. Acceptance and toleration were excellent.

Intestinal & Respiratory Infection

Hartman, S. A.[13]
Sherman Oaks, Cal.

Six cases of g.i. infection (diverticulitis, ileitis, colitis) responded in three to eight days on the lower milligram intake...even after failure in most with sulfa, neomycin or penicillin-streptomycin. Complete recovery was gained in 5 respiratory cases on a shorter schedule; another withdrew with occurrence of thrush. No other side effects were reported.

Respiratory Infection

Feingold, B. F.[6]
San Francisco, Cal.

All 13 upper or lower respiratory infections demonstrated very good response in 2-3 days on recommended dosage. No side effects were reported.

Various Infections

Compilation of reports of 210 clinical investigators.[23]

Of 1,904 patients with adequate follow-up treated for a wide diversity of infections, 87 per cent were reported as cured or improved. Most patients received one 150 mg. tablet every 6 hours. Therapy usually was for three to eight days. Side effects, mostly referable to the gastrointestinal tract, occurred in 200 patients.

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PERFORMANCE *(continued)*

Respiratory Infection & Others

Gates, G. E.[33]
South Bend, Ind.

Of 65 cases, predominantly respiratory infections, but including some of cystitis and cellulitis, 50 had a good response, 12 were fair and three were failures. One of the failures was a case of chronic ulcerative colitis and two were respiratory infections. The only complication was a slight vulvular pruritus and burning tongue occurring near the end of a week's treatment of residual pneumonitis.

Pustular Dermatoses

Kanof, N. B., and Blau, S.[16]
New York, N. Y.

Eighty-five per cent of 67 patients responded with excellent or good results on a DECLOMYCIN schedule of one 150 mg. capsule q.i.d. for two to twelve weeks. Three poor responses were related to highly resistant organisms. No pruritus or drug eruptions developed. Only four cases showed nausea or diarrhea in the long therapeutic course.

Surgical Infection

Floyd, R. D., and Anlyan, W. G.[8]
Durham, N. C.

Successful results were generally obtained in 60 patients given 600 mg. DECLOMYCIN daily (or slightly less) for five to 15 days. No infection developed in the clean or contaminated prophylaxis group. Most frank infections responded...including several refractory to previous antibiotics. No toxicity evidenced. Intestinal toleration was excellent.

Wound Infections & Others

Meyer, B. S.[21]
Birmingham, Ala.

Thirty-five cases, chiefly prophylactic, and some traumatic-surgical wound infections were treated usually on one capsule DECLOMYCIN q. 6 h. for two to eight days. Over 80 per cent responded, including one with Pseudomonas etiology. Minor itching or nausea occurred in two; prominent nausea developed in one on a q. 4 h. schedule.

Topical & Wound Infections

Stewart, J.[26]
New Orleans, La.

Of 21 patients followed, 15 completely recovered, four improved in four to 42 days on 600 mg. daily. Seven had not responded to various other therapies. One had *A. aerogenes* predominance, complicated by Proteus and *E. coli*. Cases were traumatic-surgical-topical infections with some respiratory. One questionable reaction of anemia was encountered.

Oral Infection

Arbour, E. F.[1]
New Orleans, La.

Of four patients treated, three responded to one capsule DECLOMYCIN q. 6 h. for three days. No change in one case of chronic proliferating periodontitis. No adverse reactions seen.

Brucellosis

Chávez, Max, G.[3]
Mexico, D. F.

All nine patients infected with *Brucella melitensis* were afebrile on fourth or fifth day of DECLOMYCIN therapy and asymptomatic within 15 days. Treatment lasted for 45 days. No relapses occurred. Hepatic, renal, or hematologic toxicity was not seen. Minor or occasional intestinal reactions in some cases did not require discontinuance.

DECLO

IMPORTANCE...

in the average patient – DECLOMYCIN reduces the possibility of gastrointestinal intolerance and increases the likelihood of an uneventful therapeutic course. Variants of an infecting organism are less likely to survive the high, sustained activity and post-dosage control. Minor or major reverses or "setbacks" during therapy may be avoided. Susceptibility to secondary infection when dosage is terminated is counteracted by the "extra-day" activity.

in mixed infections–DECLOMYCIN provides satisfactory control of conditions involving multiple pathogens. Since organisms vary in sensitivity at given antibiotic levels, the higher DECLOMYCIN activity tends to inhibit a greater proportion of the less susceptible strains. Remission and bacteriologic cure can thus progress at a faster pace.

in the absorption-deficient – The high activity/intake ratio of DECLOMYCIN provides a wider margin of security for those with disturbed or abnormal absorption or with underlying gastrointestinal dysfunction. Inhibitory levels remain more than adequate in most.

under adverse host conditions – In debility, malnutrition, neoplasm, diabetes, or other organic, chronic or underlying disease, DECLOMYCIN may be vital to successful resolution of infection. *Generally in geriatrics*, for the same reason, DECLOMYCIN should often be a broad-spectrum of choice.

if an occasional dose is missed – The sustained action of DECLOMYCIN protects against possible loss of control. In the sleeping patient, an occasional dose may be foregone without adverse effect, while benefits of such rest are gained. Arbitrary rejection of a dose by pediatric or geriatric patients...simple forgetfulness...or postponing a dose will not appreciably reduce antibiotic activity provided these do not occur frequently.

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PEDIATRIC DROPS, 60 mg./cc. (custard flavor) in 10 cc. bottle with calibrated dropper. *Dosage:* 1-2 drops (3-6 mg.) per pound body weight per day—divided into 4 doses.

ORAL SUSPENSION, 75 mg./5 cc. teaspoonful (custard flavor) in 2 oz. bottle. *Dosage:* 3-6 mg./lb./day—divided in 4 doses.

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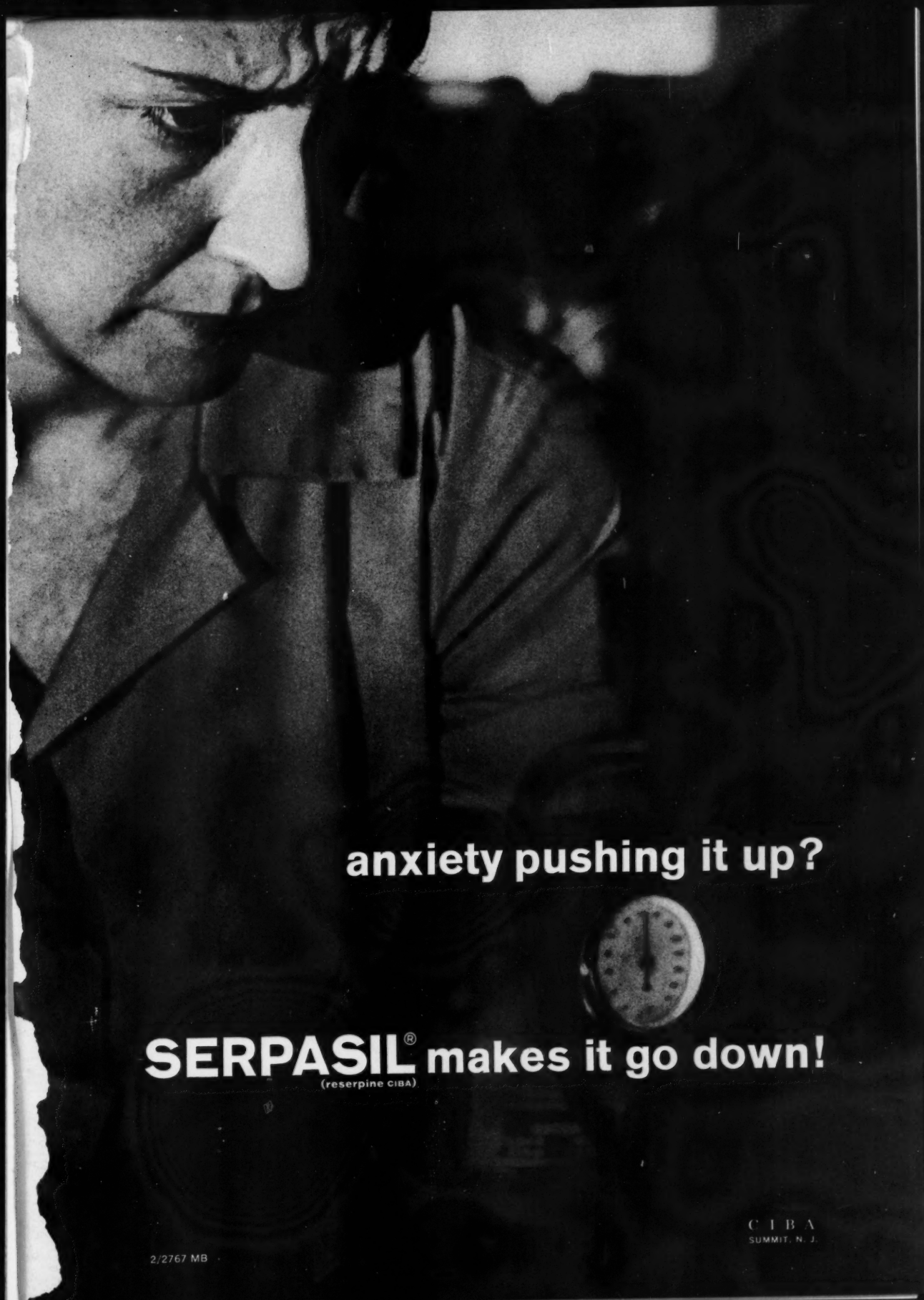
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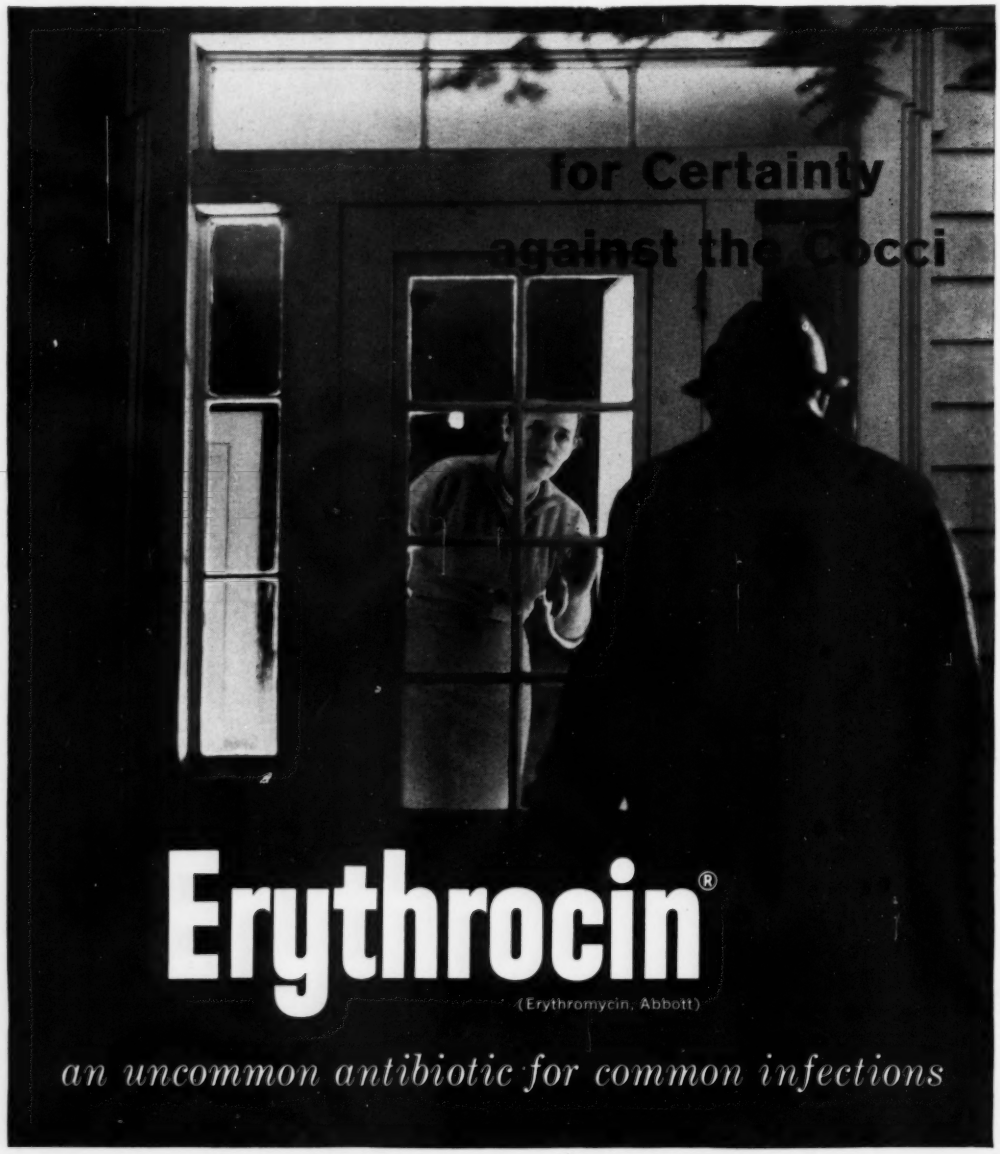

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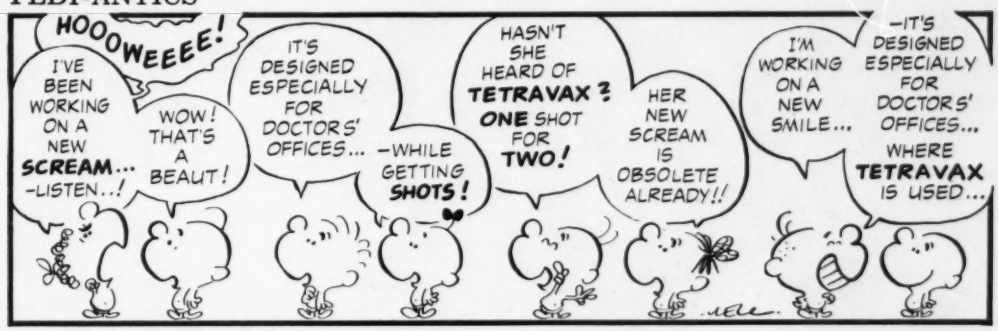

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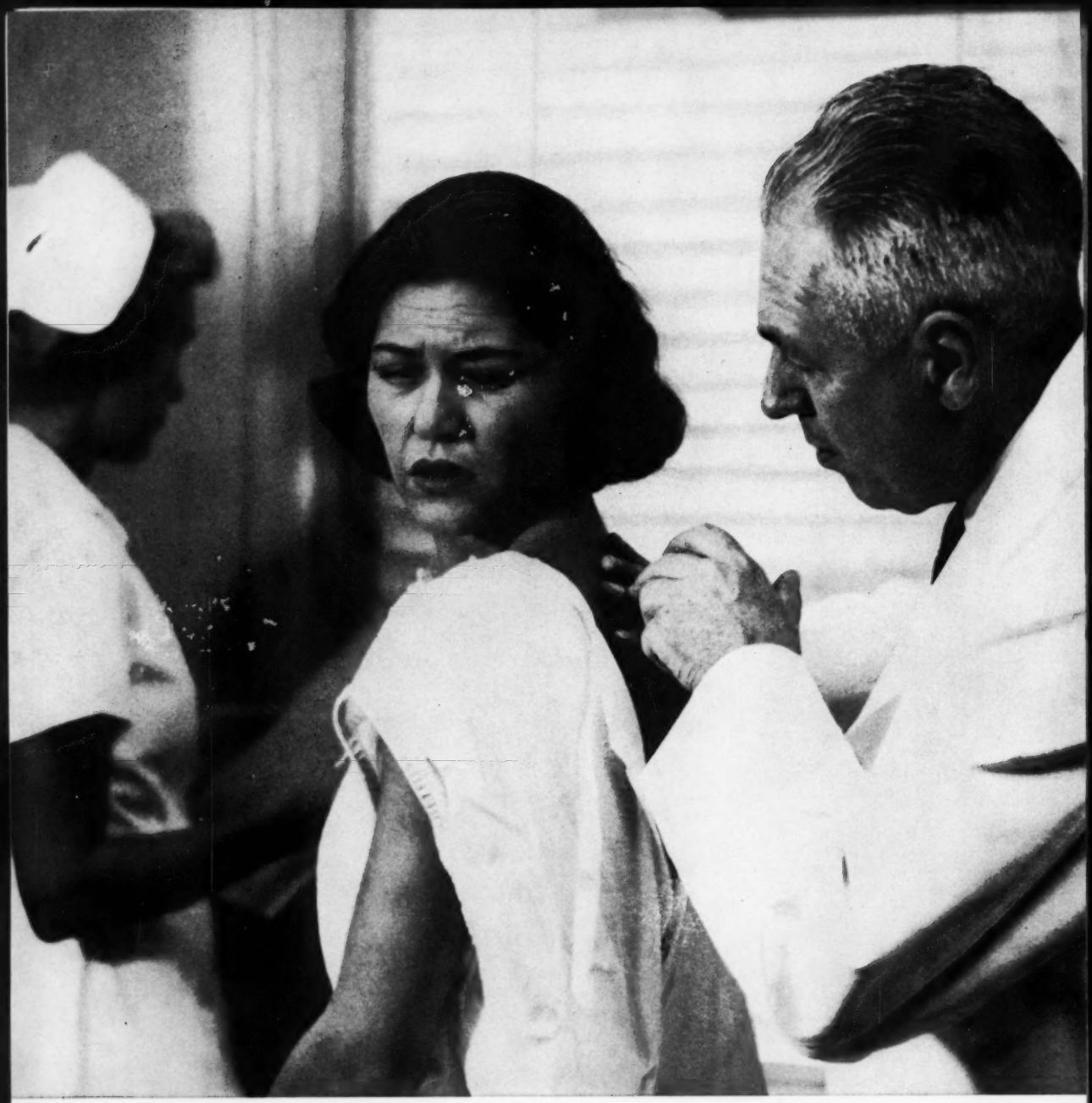

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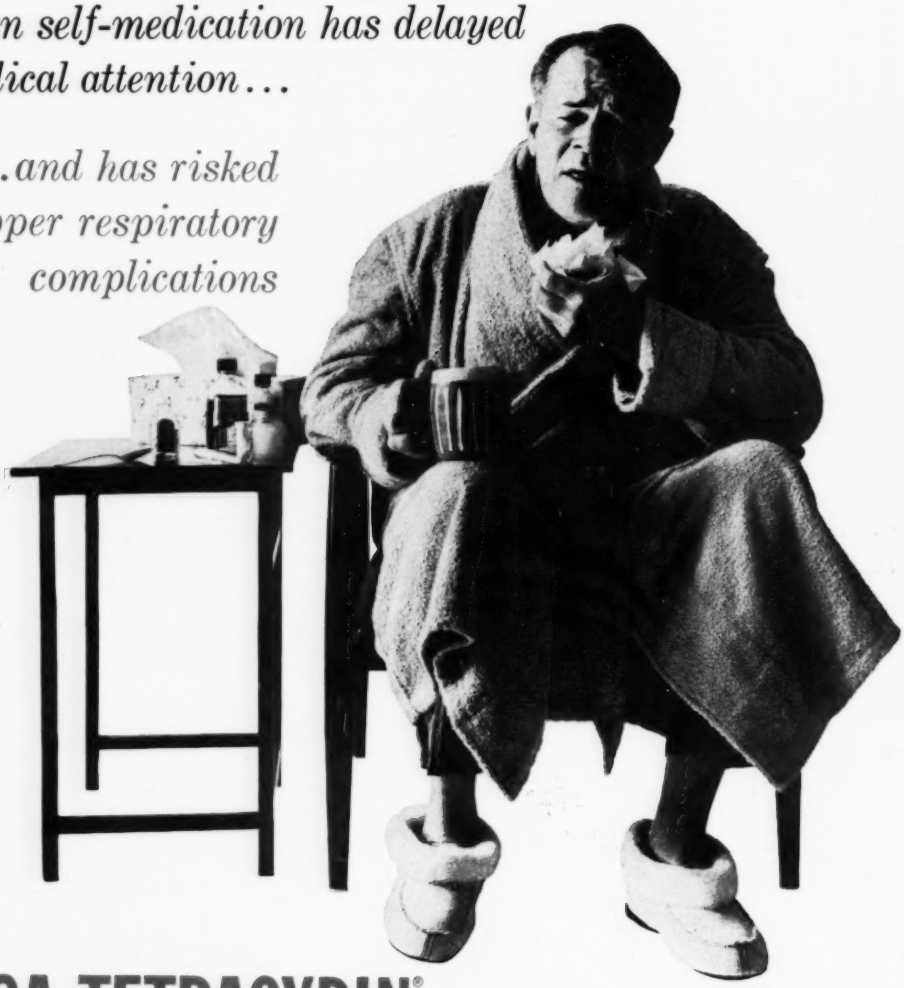

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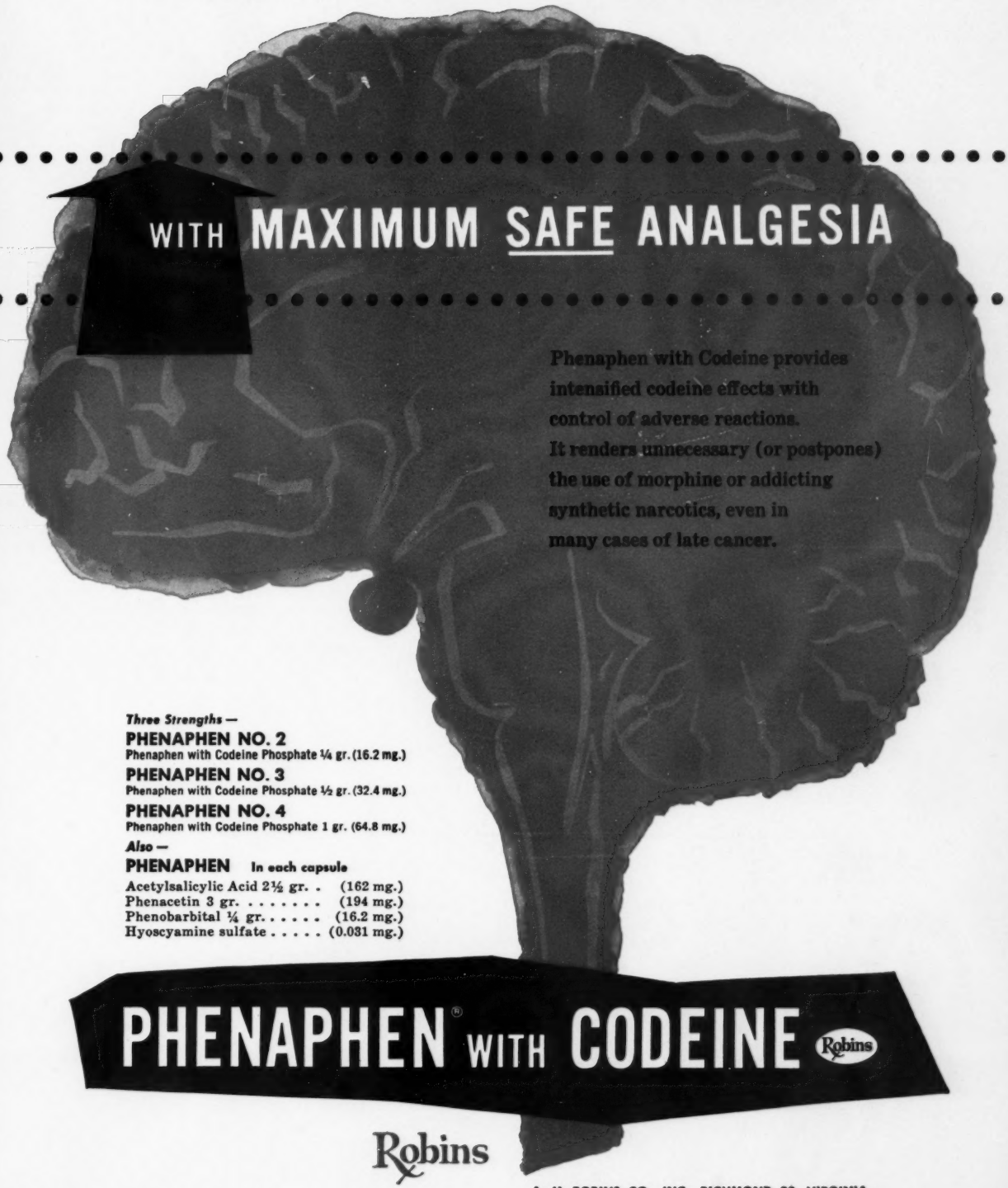

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ACUTE PHARYNGITIS, ESPECIALLY WITH LYMPHADENITIS

Ideally, selection of the proper antibiotic for treatment of acute pharyngitis should await the laboratory reports on the susceptibility of the infecting bacteria. But the busy practitioner who sees many patients a day during the upper respiratory infection season may sometimes find it difficult to avoid the empirical choice of an antibiotic. Unfortunately, this practice may sometimes result in therapeutic failure.

No matter what the pressure of the immediate situation, it is worthwhile to consider taking a bacterial specimen from the infected pharynx for culture and sensitivity studies before starting treatment. Thus, a rational basis will be provided for changing the antibiotic should the first choice prove ineffective.

Which Antibiotic?

All other things being equal, the drug of choice is the one to which the pathogen is most susceptible. But if the exigencies of the situation force the physician to a prompt use of antibiotic, a broad-spectrum preparation that produces immediate high blood levels (e.g., tetracycline phosphate complex, TETREX) probably has the best chance of controlling the pathogen.

Later, the laboratory report frequently may indicate that any one of several antibiotic agents would be equally effective against the particular microorganism in question. In such a case other factors such as frequency and severity of side effects, sensitizing potential and toxicity should be considered.

If the acute pharyngitis in question should be due to gram-negative Klebsiella[1], penicillin will be of no value, nor will erythromycin be effective. However, this organism is susceptible to tetracycline. If the pathogen should turn out to be gram-positive Streptococcus or Staphylococcus, then penicillin, erythromycin, and tetracycline may all be effective against it.

Penicillin, however, in addition to having a limited spectrum, also causes many minor and some serious sensitivity reactions. In a recent survey[2] it was found that penicillin produced severe skin reactions. But most important was the observation that anaphylactic shock, with a fatality rate of about 9 per cent, was the most frequent serious reaction. Such severe reactions are almost always associated with parenteral administration.

The tetracyclines (e.g., TETREX) have the advantages of a broad range of antimicrobial activity and low toxicity. And in addition, the physician does not have to trouble himself or his patients with repeated blood studies when he prescribes TETREX. Minor reactions such as gastric upsets or mild skin rashes occur occasionally. The most serious side effects are staphylococcal and monilial overgrowth, but these are rare and can be adequately controlled.

***Some Microorganisms Susceptible[a] to Tetracycline* (TETREX)[b]**

Streptococcus; Staphylococcus; Pneumococcus; Gonococcus; Meningococcus; *C. diphtheriae; B. anthracis; E. coli;* Proteus; *A. aerogenes; K. pneumoniae;* Shigella; Brucella; *P. tularensis; H. influenzae; T. pallidum;* Rickettsiae; Viruses of psittacosis and ornithosis, lymphogranuloma inguinale, primary atypical pneumonia; *E. histolytica; D. granulomatosis.*

[a] Some strains are not susceptible.

[b] Table adapted from Goodman, L. S., and Gilman, A.: The Pharmaceutical Basis of Therapeutics, 2nd edition, New York, The Macmillan Co., 1956, pp. 1322-1323.

High blood, body fluid, and tissue levels of active drug are quickly attained when the new phosphate preparation of tetracycline (TETREX) is used.

The semisynthetic tetracyclines have been in constant use since they were introduced in 1952. They have been proved clinically and have established themselves as safe, effective, and valuable antibiotic agents. But the final decision, the choice of agent, and the control of therapy must remain where it has always been, in the hands of the individual physician.

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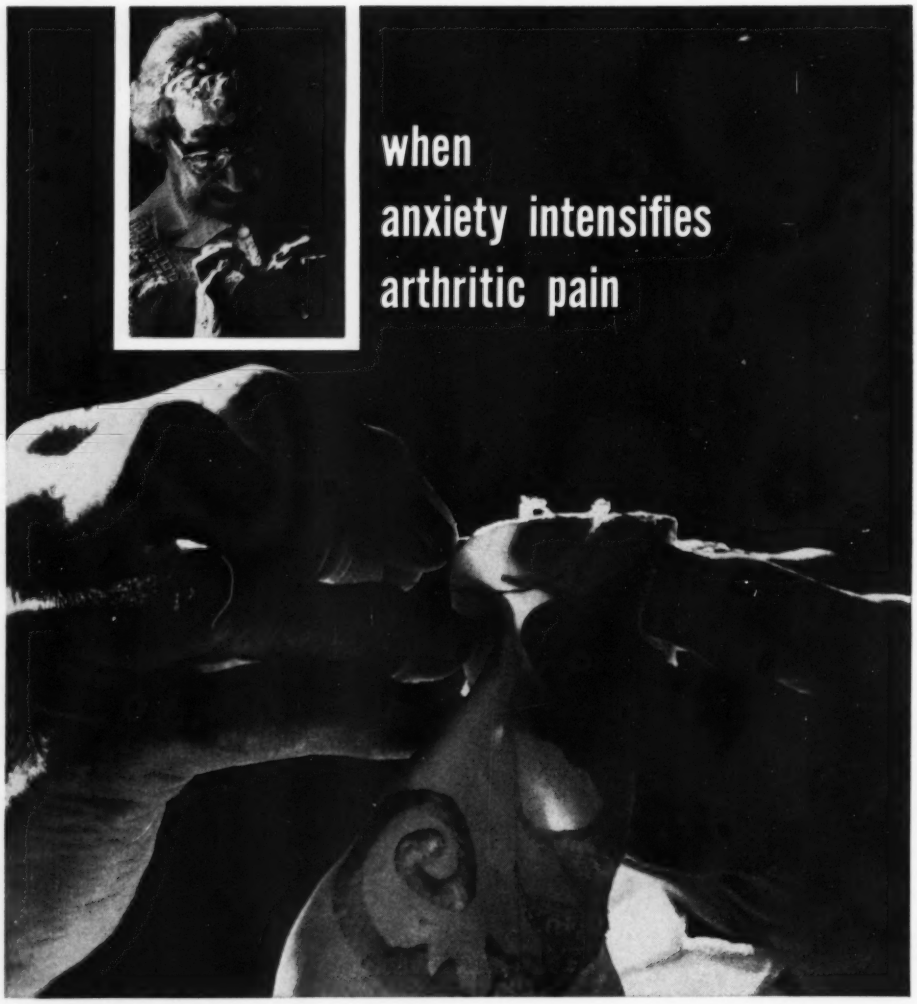

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THE MANAGEMENT OF URINARY TRACT INFECTIONS

● **The author comments upon various therapeutic preparations for the therapy of specific infections of the urinary tract.**

ARTHUR ULLMAN, M.D.*

The proper treatment of urinary tract infections begins with an attempt to determine the basic cause of the infection. A knowledge of the mechanisms involved is therefore fundamental.

In a normal urinary tract, bacteria are found for about one centimeter within the urethral meatus in both sexes. It is believed that the potent antibacterial action present in the urinary system, proximal to the meatus, is peculiar to the epithelial cells lining the tract or perhaps to substances in the urine, or possibly both acting together. If bacteria are introduced into a normal urinary tract, they will be spontaneously eradicated within several days. Persistence of infection is due to an upset in the normal protective forces. The most frequent cause is urinary stasis, due to obstruction of the normal flow or paralysis of the detrusor muscle. The antibacterial powers of the urinary tract will reappear after the persistent infection has been eradicated by the permanent removal of the obstruction. In stasis due to paralysis, infection will disappear only if and when the muscle can resume its normal function.[11]

*Chief of Surgery, Veterans Administration Hospital, Wilmington, Delaware.

The Various Path Ways

Intelligent therapy requires a consideration of the various pathways by which bacteria reach the interior of the urinary tract. The most frequently described routes of spread are hematogenous, lymphogenous, or by foreign objects inserted into the urethra. Those which occur in decreasing frequency are: through wounds in the urinary tract; by direct extension from other organs; by surface extension from the exterior along the mucosal surface of the urethra, and through congenital or neoplastic abnormal openings.[3,11]

The initial step in evaluation of the infection is the examination of a properly

obtained specimen. In a male the glans is cleansed and a mid-stream specimen collected. In a female, only a catheterized specimen is valid. One first determines if an infection is actually present, and if it is an uncomplicated infection or one secondary to some coexisting lesion. Secondary lesions include obstruction, calculus, tumor or cicatrix formation. If such a lesion exists, it must be removed since therapy will be ineffective in its presence.[3,11,13] The collected urine is centrifuged and the sediment examined. The presence of pus cells per se is not conclusive evidence of infection, for pus may be present from drug or chemical irritation, such as turpentine. Infection without pus characterizes an apyuric bacteriuria.[11]

The organisms are demonstrated with Gram stain as well as by culture. In the absence of organisms viral infection is suspect. Two or three courses of unsuccessful therapy indicate the need for a more complete diagnostic study, including excretory urography and, if necessary, functional studies and retrograde pyelography. An estimate of renal function and morphology can be demonstrated by excretory urography. Cystoscopy often reveals neoplasms or calculi masked by infection.[10,13]

Common Microorganisms

The microorganisms usually found in urinary tract infections are Gram negative bacilli (75 percent of infections), and Gram positive cocci (25 percent).[33]

Escherichia coli is the most commonly occurring Gram negative organism. Closely related organisms, Aerobacter aerogenes account for only about 10 to 15% of the cases of bacillary infections. Other bacilli found are Proteus, Pseudomonas, Salmonella, Shigella and Alcaligenes. Pathogenic and nonpathogenic organisms of the Genus Micrococcus are found in urinary infections. Certain of the non-pathogens occur as normal inhabitants, such as Sarcina lutea. Most pathogens belong to the species Micrococcus pyogenes-aureus and albus whose infections, as with the streptococci, may be blood borne and secondary at times to foci elsewhere in the body. The hemolytic and green producing streptococci occur in less than 5 percent of urinary tract infections. Streptococcus faecalis is usually a rare secondary invader, unless preceded by instrumentation or a surgical procedure.[3,10]

No discussion of tuberculosis, gonococcal or unusual infections of the urinary tract will be presented in this paper.

Single organisms are found in 80 to 100 percent of acute infections; multiple organisms in about 8 percent. It is important in mixed infections to differentiate the causative agent from contaminants. If there is a doubt, a repeat urinalysis should be done. A true bacilluria is present with bacterial counts of 10^5 or more per cubic centimeter of urine, while smaller counts are probably a result of contamination.[22] When a bacteriostatic agent has been administered previously in acute pyelonephritis, counts may fall below 10^5. If diuresis is good and drainage adequate few bacteria are discharged from the kidney, and stasis in the bladder does not occur.

The pH of the urine in conjunction with bacteriocidal and bacteriostatic agents is important, since it limits the degree of bacterial multiplication. Bacteriostasis occurs when pH values are below 5.0 or above 8.5. Dilution effects become noticeable at a specific gravity of 1.003 or less in an acid medium.[22]

The effectiveness of therapy depends upon a satisfactory urinary output, relief of obstruction, the sensitivity of the pathogens to the therapeutic agents, the effective concentration of the drug at the bacterial site and the degree of chronicity of the infection.

Early Specific Treatments

One of the earliest specific treatments for cocci infection was the intravenous administration of neoarsphenamine. In 1932 the ketogenic diet employed beta hydroxybutyric acid as a bacteriocidal agent. The following year a specific bacteriophage re-

ceived a trial with little success. Approximately 20 years ago the use of mandelic acid and methenamine mandelate was instituted. Their effectiveness depends upon the maintenance of urinary drug concentrations of 0.5 percent to 1.0 percent at pH values below 5.5.[1] They are easily administered, show a relative lack of toxicity, and suppress bacteria for prolonged periods in chronic infections, although without cure still without the emergence of resistant variants of pathogens.[1,4] Hematuria and gastrointestinal disturbances are manifestations of excessive dosage. The prescribed daily dosage is 12 grams of mandelic acid or 6 grams of methenamine mandelate. It is difficult to achieve good results in patients with impaired renal function in the presence of urea-splitting bacteria. Notwithstanding the relative lack of effectiveness of these two drugs at body pH, the eradication of urinary tract infections is possible.

Sulfonamides

Shortly after the azo sulfonamides were introduced in 1935 their clinical application in urinary tract infections proved valuable. The development of derivatives as well as mixtures of two or more of the derivatives have enhanced their effectiveness.[1] The factors which determined the choice of the sulfonamides are the rate of absorption, distribution in body fluids, acetylation, and over-all toxicity.

Gantrisin

Gantrisin is the drug of choice in the treatment of Proteus infections. It is also effective against Escherichia coli and Alcaligenes, but only moderately so against Aerobacter and paracolon bacillus.

Therapeutic level is obtained without the production of any local or systemic reaction by a dose of 2.0 grams every 6 hours. The concomittant use of alkali or forced fluids is unnecessary.

With so many sulfonamide preparations now available it seems wise for the clinician to choose one of the more commonly employed drugs with a long and clearly proven history of clinical usefulness and effectiveness. A sulfonamide or combination of sulfonamides should be tried first in infections of the urinary tract. Their effectiveness is 75-90 percent in uncomplicated infections and 17-55 percent in complicated infections.[1-5,8,10,14,24,25,28,32]

Penicillin

Penicillin is useful in the treatment of urinary tract infections caused by streptococci, staphylococci and other Gram positive organisms. In combination with the sulfonamides it has been successful in the treatment of mixed infections caused by both Gram positive and Gram negative organisms. The sensitivity of staphylococci to penicillin has decreased steadily as the use of the drug continues, and the incidence of susceptible strains is now about 25 percent. However, the penicillin resistant strains are found largely in hospitals. Patients without recent hospitalization or recent administration of penicillin usually harbor sensitive staphylococci. Enterococcal infections usually occur in association with other bacteria. Their presence is frequently a consequence of instrumentation of the urinary tract. Although penicillin has been of value in the treatment of many enterococcal infections, bacteriologic control is generally difficult. Some enterococci are killed more rapidly by optimal concentrations of penicillin than by does in excess of the optimal concentration.[12,15,17,33] The therapeutic dose is 300,000 units of procaine penicillin every 12 to 24 hours. Considerably higher amounts, 600,000 to 1,000,000 units every 12 to 24 hours, are recommended in severe cases. In mixed bacillary and coccal infections combination therapy with sulfonamides, streptomycin or other antibiotics is advisable.

Streptomycin

The majority of urinary tract infections caused by Gram negative bacteria are sensitive to streptomycin. However, the drug has toxic properties and organisms rapidly develop a resistance to it. This precludes its widespread and prolonged use.[21,22,32,33]

The capacity of streptomycin to induce resistance is probably greater than any other commonly used antibiotic. The drug should be used no longer than 5 to 7 days. The dosage is 1.0 to 2.0 grams per day. It is advisable to alkalinize the urine during streptomycin therapy. Oral administration of sodium bicarbonate or sodium or potassium citrate in doses of 2.0 grams every 4 hours is satisfactory.[23] Bacteriologic control of acute infections of the urinary tract is 60 to 80 percent effective with streptomycin.[21,22]

Cyclines

The relatively great effectiveness of all the drugs in the group of Cyclines and the ease of administration has led to their widespread use. Chlortetracycline is probably the most active of the tetracycline group of antibiotics against susceptible bacteria but Proteus and Pseudomonas strains tend to be resistant. A satisfactory response is achieved in acute as well as chronic infections, and in those infections which fail to respond to other forms of therapy. This cycline is active against Gram positive and Gram negative forms. It is relatively nontoxic and does not often give rise to resistant variants. The activity is enhanced in an acid menstruum. The dose is at least 25 milligrams per kilogram orally every 24 hours, divided into four equal doses, or 500 milligrams every 6 hours for the average adult.[27,33]

Oxytetracycline which has greater effectiveness against Pseudomonas aerugenosa than others in the group is also of value in the therapy of infections due to Escherichia coli, Aerobacter aerogenes, Alcaligenes sp., Streptococcus faecalis and Staphylococcus aureus.

Tetracycline is especially active against Escherichia coli, Aerobacter aerogenes, Staphylococci and Enterococci.[3,22,33] The chief difficulty with the cyclines is their tedency to induce gastrointestinal and muco-cutaneous disturbances.

Chloramphenicol

Chloramphenicol, the first broad spectrum antibiotic to be reported in the literature, is of particular value in infections caused by the colon-aerogenes group. The dosage is essentially the same as with the cyclines, 250 to 500 milligrams four times a day for 5 to 7 days.[7,20,33]

Nitrofurantoin

Nitrofurantoin, although not an antibiotic, is effective in clearing 75 to 80 percent of acute urinary infections, but only a small percentage of chronic complicated infections. It is particularly effective against Escherichia coli, Aerobacter aerogenes, Proteus rettgeri, and Proteus morgagni. The most resistant strains encountered in one study were Micrococcus pyogenes var. aureus, Proteus vulgaris and Proteus mirabilis. Reports of its therapeutic effectiveness vary from a 50 percent to a 90 percent control of Proteus vulgaris.[6,9,19,29,31] Nitrofurantoin is taken with meals in doses of 200 to 400 milligrams per day. Gastrointestinal reactions are present in about 25 percent of the patients.

Erythromycin

Erythromycin has an antibacterial spectrum similar to that of penicillin. Its major use in the treatment of urinary tract infections is in Staphylococcal or Enterococcal infections in those individuals sensitive to penicillin. Resistance occurs but it can be delayed by combining with other drugs.[10] Toxicity is low and is limited to the gastrointestinal tract.

Carbomycin

Carbomycin, with a similar range in activity to erythromycin is effective against Gram positive organisms, especially against Streptococcus faecalis. Its toxicity is low but in some patients it may enhance the growth of Gram negative organisms.[30,33]

Bacitracin

Bacitracin is ineffective against all renal pathogens except the Staphylococcus. Its renal toxicity limits its use to instances where other drugs are ineffective.[16,33]

Neomycin

Neomycin is highly nephrotoxic and is recommended for urinary tract infection

only in the most desperate situations.[32,33]

Summary

The urinary tract remains sterile throughout life in a normal healthy individual. Proper evaluation of history and associated pathological entity is of prime importance for proper therapy. The peculiar characteristics of each specific infection must be known and treatment with therapeutic preparations planned for each individual patient.

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INTRAPERITONEAL BLEEDING DUE TO ANTICOAGULANT THERAPY FOR MYOCARDIAL INFARCTION SIMULATING ACUTE SURGICAL ABDOMEN*

● This article reviews the literature on bleeding due to anticoagulants, particularly in the treatment of myocardial infarction, and stresses the need for educating patients in the hazards of anticoagulant therapy. In analyzing two cases which simulated acute surgical abdomen, the author concludes that this complication, though not rare, is infrequently reported.

TWO CASES

MARVIN L. BOBB, M.D.**

Anticoagulant therapy is almost universally accepted at the present time in the treatment of certain cases of myocardial infarction. Most authors acknowledge the need for careful control because of the risk of hemorrhagic complications. In 1954 Wright and his group published a monumental survey of 1031 cases of myocardial infarction treated with anticoagulants. They stressed that there existed certain basic conditions which constitute contraindications to anticoagulant therapy. These are: (1) Prothrombin deficiency secondary to vitamin K deficiency, or to severe hepatic disease, (2) Vitamin C deficiency, (3) Renal Insufficiency, (4) Blood Dyscrasias with impairment of normal clotting mechanisms, (5) Various surgical procedures such as operations on the brain and spinal cord; recent operations leaving denuded surfaces; post-operative drainage of wounds or viscera; operations performed in the presence of obstructive jaundice or severe liver damage, ulcerations and open wounds, (6) Extreme hypertension, (7) Subacute Bacterial Endocarditis, (8) Dissecting Aortic Aneurysm, (9) Psychosis or character disturbance. They also listed clinical conditions which may produce hypothrombinemia. They also pointed out that lumbar sympathetic blocks are potentially dangerous in patients under anticoagulant therapy in the treatment of thrombophlebitis and phlebothrombosis. However, they made very clear that the so-called contraindications actually are only such in a relative sense, and that often anticoagulants may be administered when indicated in the face of these conditions provided that the treatment is carried out with meticulous care. Anticoagulants are not, for instance, contraindicated in pregnancy although they should be used with considerable caution for obvious reasons. They recognized that bleeding does occur during the course of anticoagulant therapy

*From the Medical Services of the Veterans Administration and Wilmington General Hospitals, Wilmington, Delaware. The statements in this article are the opinions of the author and do not represent the policy of the Veterans Administration.

**Assistant in Internal Medicine, St. Francis Hospital, Wilmington.

in the absence of major contraindications. Of course the major cause is excessive prolongation of prothrombin time by administration of dicumarol and related drugs, or also of the clotting time of the whole blood by the administrations of heparin. Bleeding occurs occasionally when the prothrombin or the clotting time is well within the normal range.

Identifying Bleeding Episode

The criterion for identifying an episode of bleeding laid down by Wright's group, is one which has been diagnosed clinically. Hematuria, for instance, of less than 15 red cells per high-powered field, is considered inconsequential. These authors found 9.2 episodes per hundred cases of bleeding definitely due to anticoagulants in this order of frequency: (1) Hematuria, (2) Hematemesis, (3) Melena, (4) Epistaxis, (5) Hemoptysis. (6) Other. It is clear that the patients in this series were followed very closely and had excellent care. The total incidence of bleeding which they reported is probably lower than usually occurs when patients are treated in other hospitals, outpatient departments and in private practice. We must remember however that not all bleeding episodes prove serious.

In the above 1031 cases "other" types of bleeding during anticoagulant therapy consisted of only five episodes, in which two patients exhibited pathological lesions from which the bleeding occurred. In the three remaining cases the authors did not state exactly where the bleeding occurred; however in autopsied cases they did list hemopericardium and hemorrhage around coronary vessels, which was not sigificantly greater in the anticoagulated than in the control group.

In the two cases reported in this article it was felt that bleeding occurred mainly into the peritoneal cavity. A review of the more recent literature on anticoagulat therapy failed to disclose a single report of intraperitoneal bleeding without preexisting pathology as the chief manifestation of hemorrhage from anticoagulant therapy. However it may be assumed that this complication is not so rare but either is unrecognized and spontaneously corrects itself or that many cases have not been reported. It would seem wise for physicians to become more aware of this possibility.

Case Reports

Case 1.

A 44 year old white man had been hospitalized at the Veterans Administration Hospital at Wilmington, Delaware from July 30 to September 19, 1959 because of a single attack of choking substernal pain four days before admission. This had lasted two and one half hours. There had been some radiation to the left arm. Serial electrocardiograms had showed deep T-wave inversions over the posterior surface of the left ventricle, compatible with a non-transmural myocardial infarction (figure 1A). He had been treated with bed rest and dicumarol. He had made an uneventful recovery. There had been neither fever nor leukocytosis. Laboratory studies had been mostly within normal limits including BSP, stools for occult blood, and S.G.O.T. However the sedimentation rate had been 40 mm. per hour. Total proteins had been 7.5 with A/G ratio of 0.92.

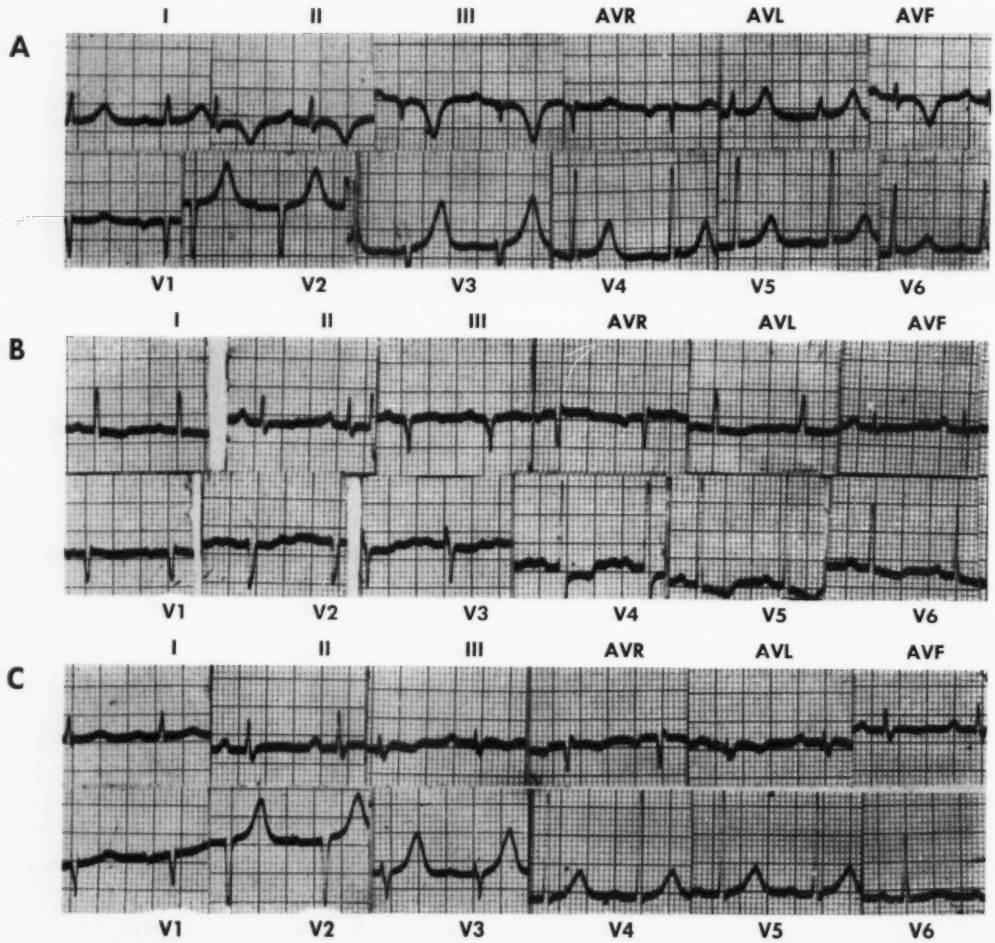
On December 3, 1959 he suddenly became ill with nausea, abdominal pain and vomiting of dark liquid which was also passed by rectum. Three days later he was readmitted to the hospital with an acute abdominal picture. Physical examination revealed T 100.0(o), P124 and BP 92/70. The abdomen showed board-like rigidity, absent bowel sounds and marked tenderness. Red blood was present on rectal examination. The skin was clear of petechiae. An electrocardiogram showed coronary insufficiency (figure 1B). There was a leukocytosis of 13,650 with 91 percent polys. The urine was loaded with RBC's. He continued to vomit and went into shock despite supportive measures. At this point a prothrombin determination failed to clot in one hour. The prompt intravenous administration of vitamin K_1 oxide, protamine sulfate and whole blood rapidly reversed

the clinical picture. The prothrombin time rose to 100 percent in a few hours.

The next day a peritoneal tap, done by Dr. E .K. Mehne of the surgical service, revealed thick dirt, semi-liquid blood which failed to clot in the syringe. Another ECG (figure 1C) showed considerable improvement.

Reexamination of the patient four weeks later revealed weakness and muscle atrophy in all extremities with hyperactive reflexes and positive Hoffman's sign in the upper extremity. These findings may be due to an intrinsic neurologic lesion although previous intracerebral hemorrhage cannot be excluded. Hematologic work-up failed to

FIGURE 1 ECG'S ON CASE I



A. Chronic stage of non-transmural posterior myocardial infarction. Aug. 21, 1959 shows deeply inverted T waves in II, III and in AVF. The QT interval appears to be prolonged for the rate, but there is probably fusion of the T with a discordant U wave.

B. Coronary insufficiency. On Dec. 5, 1959 — during the bleeding episode. ST segment inversion and a prominent upright U wave are present in V4.

C. Patient assymptomatic — Dec. 29, 1959. Improvement in T wave pattern.

disclose ay obvious cause for bleeding other than anticoagulants. A battery of liver function tests were normal.

Case 2.

A 63-year-old white man—a leather worker admitted to the Wilmington General Hospital on March 27, 1959 because of abdominal pain which had started three days prior to admission and which had localized for a while in the right lower quadrant. On the day before admission he had become nauseated and vomited coffee ground material. There had been no spontaneous bowel movements for several days. He had taken an enema on the day before admission and noted some red blood in the rectum. There had been no dysuria or hematuria. He had been told that he had a coronary occlusion several months before and since then had been on dicumarol therapy. The prothrombin time had been checked occasionally. Physical examination showed BP 150/90, temperature 97.0(o), respirations 20 per minute, pulse 100 and regular. Positive findings were limited to the abdomen which was distended. Peristalsis was absent. There was generalized tenderness, but no rebound.

Rectal examination revealed scanty red blood. The prostate was slightly tender and slightly enlarged. The afternoon of the same day pettechiae were noted over the abdomen; a Rumpel-Leede test was positive. Initial studies were as follows: Hemoglobin 10.4 grams, WBC 6,000 (63 polys. with 8 stabs and 37 lymphs), hemotocrit 34 per cent. The prothrombin time was 2 minutes (less than 10 per cent of normal). The urine was loaded with red cells. A chest x-ray showed only some pleural thickening at the right base. Flat films of the abdomen (supine and erect) did not show any free air under the diaphragm but both large and small bowel were distended and contained multiple fluid levels. In addition free fluid was present in the peritoneal cavity (Figure 2).

Several transfusions of fresh whole blood were given and a rectal tube was inserted.

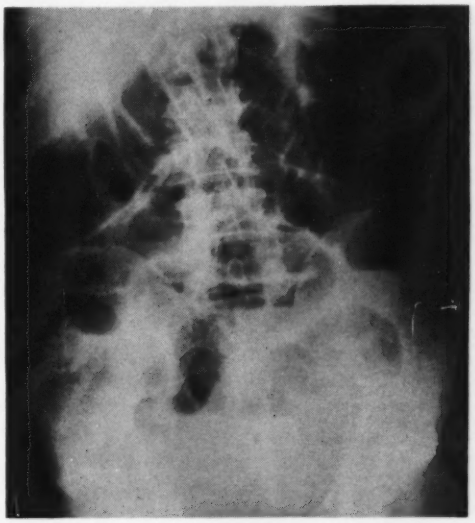


Figure 2

This shows a fluid level blood in the pelvis on an erect flat film of the abdomen.

He was given 50 mgm. of vitamin K_1 oxide intravenously; the prothrombin time rose to 52 percent; following two more doses it was 82 and 100 per cent. A Levine tube was inserted into the stomach and nasogastric suction was applied. Intravenous fluids were given. The blood pressure remained relatively stable at all times. There was never any real sign of shock. On the third hospital day peristalsis was present and the Rumpel-Leede test became negative, both for the first time. However abdominal distention persisted and the following day the patient had a severe nosebleed. Liver function tests were then done to determine if any other cause for bleeding existed, but they were all within normal limits. There was after this no more evidence of bleeding; the hemoglobin remained stabilized at about 13.8 grams.

An electrocardiogram taken at this time was not remarkable. The patient had begun to take clear liquids by mouth on the fourth day and was gradually switched over to a soft diet. The Levine tube was removed on the sixth hospital day. He was discharged on April 10, 1959 after 15 days in the hospital. Because he never had any

chest pain or other evidence of coronary artery disease while in the hospital, it was decided to discontinue anticoagulant therapy. Follow-up seven months later showed that the patient had been free of bleeding.

DISCUSSION

In both cases it was almost certain that bleeding had occurred into the peritoneal cavity. In the first case old blood was aspirated. In the second case there was roentgenologic evidence. In both instances anticoagulants had been given and the prothrombin time was below therapeutic levels at the time of bleeding. The fact that the clinical condition of both patients responded rapidly to vitamin K_1 oxide is further evidence that hemorrhage had caused the abdominal crises.

Stern and Dreskin[2] found the most common types of bleeding from anticoagulants to be the skin, the genitourinary and the gastrointestinal tract. None of their patients had intraperitoneal bleeding. The patient with gastroitestinal bleeding subsequently showed a duodenal ulcer on G.I. Series. Duff and Shull[3] reviewed the literature since 1941 and found reports of 21 deaths attributed to dicumarol. None of these specifically showed intraperitoneal bleeding, although six cases were merely listed as dying of "hemorrhagic diathesis." The authors presented one case of their own, a 36 year old woman treated with dicumarol because of thrombophlebitis. She presented with predominantly neurologic signs as well as with lower abdominal cramps, hemoptysis, and vaginal bleeding. Post-mortem examination showed widespread hemorrhages, including 100 cc. of blood in the peritoneal cavity.

RESULTS

Lilly and Lee[4] reported five deaths and five serious post-operative complications arising from anticoagulant therapy. One case who had had a subtotal gastric resection developed hemoperitoneum while receiving anticoagulants. This patient recovered. They mentioned one patient on dicumarol who expired with diffuse hemorrhage into the peritoneal cavity, the renal fossae and into the sites of alcohol injections which had been done on the lumbar sympathetic trunks. Wesley[5] et al. showed two cases of massive intraperitoneal hemorrhage arising from various ovarian follicular structures during anticoagulant therapy. Each diagnosis was made at larotomy. Hohf[6] reported two instances of retroperitoneal hemorrhage caused by lumbar sympathetic blocks used in conjunction with anticoagulant therapy. They concluded that there is undue risk in using lumbar blocks in conjunction with anticoagulants. This conclusion is not justified if the conditions of Wright's group are met, as mentioned earlier. None of these authors present patients with myocardial infarction who bled primarily into the peritoneal cavity and who recovered. It is beyond the scope of this paper to discuss the complex factors involved in blood clotting.

SUMMARY

Two cases are presented. Acute surgical abdomen was simulated by hemorrhage due to dicumerol therapy for myocardial infarction. No previous cause for bleeding was known. Both patients recovered after prompt administration of vitamin K_1 oxide. This complication is probably not rare, although it is practically never reported.

A critical review of the literature on anticoagulants, particularly when they are used in the treatment of myocardial infarction, shows a rather low incidence of hemorrhage when the patients are carefully observed. These patients should nearly always be educated in the hazards of anticoagulants.

ADDENDUM

The author thanks Thomas M. McMillan, M.D. for advice and critcism in preparing this paper. He also thanks E. K. Mehne, M.D. of the Wilmington Veterans Administration Hospital and Harold Rafal, M.D. of the Wilmington General Hospital for graciously submitting these cases for publicatios.

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LOWER EXTREMITY AMPUTATIONS

● **Amputations are on the increase, particularly in our aged population, according to this author. He reviews some of the principles involved at the various levels of amputation of the lower extremity.**

DONALD G. MCHALE, M.D.*

In reviewing a study of the operations performed at this hospital in the past year, it confirmed an impression that we were actually performing more major lower extremity amputations than in previous years. There were thirteen below knee amputations, and twelve above knee amputations. Associated surgical procedures with these amputations are fairly numerous and include aortograms, femoral angiograms, sympathectomies, exploration of vessels, insertions of grafts, amputations and incision and drainage of infections of toes, and embolectomies. It is apparent that we are dealing with a type surgical problem which is not uncommon and which appears to be on the increase in the patient population in this hospital.

*Chief of Surgery, Veterans Administration Hospital, Wilmington, Delaware.

The Greater Life Span

Numerous articles on the treatment of the elderly patient indicate the fact that there is considerable attention being focused on this increase in number of our older aged population. Some statistics claim there are sixty million people over middle age in the United States. There are twenty

million people who have reached age sixty-five and each year an additional four million is being added to this latter group. It is because of certain of the above mentioned items that consideration is being given to this problem of leg amputations.

PREOPERATIVE CONSIDERATIONS

The majority of these patients previously mentioned came to surgery because of the so called peripheral vascular failure of the extremities and their unsuccessful treatment . These included for the most part arteriosclerosis obliterans, with and without diabetes, thromboangitis obliterans and arterial embolism. Only one amputation below the knee in this series was needed as the result of acute trauma.

Though necessary, amputation of an extremity is an unpleasant type of surgical treatment for both the patient and the physician. There is a certain reluctance on the surgeon's part to have to suggest such a mutilating procedure. The patient often has spent considerable time trying to stave off the prospects of such a procedure; indeed, he is often depleted both physically, mentally and economically in a prolonged battle trying to save the extremity.

When the indications for amputation are clear, it seems less cruel to urge the patient and his family to accept amputation early, rather than to continue a long period of fruitless, conservative treatment which is expensive and ultimately demoralizing to both parties.

ARTERIOSCLEROSIS OBLITERANS

In the chronic occlusive types of arterial disease, arteriosclerosis obliterans is the commonest cause of arterial occlusion. It may be segmental, affecting short portions of the aorta, iliac, femoral or popliteal arteries. It may involve these large arteries diffusely or it may be chiefly a small vessel disease, involving arteries such as the anterior and posterior tibial, peroneal or the named and unnamed digital arteries of the feet and even the arterioles. A fair amount of literature has been published on the differences or sameness of the occlusive process in the diabetic versus the non-diabetic patients. Other than that the diabetic patient may sometimes be younger and thus not so far along in the progressive changes of the disease, there seems to be little separating these two types of patients.

The demonstration of the occasional segmental nature of the occlusive process has led to enthusiastic attempts to treat the disease by insertion of arterial or synthetic vascular replacements as substitutes for homografts. It is felt that these later grafts will completely supplant homografts.

Therapy Program

It is questionable just how much can be done in the conservative management of peripheral vascular disease. One wonders whether any break-through can be accomplished in slowing down the various degenerative processes that accompany aging. Conservative treatment other than surgery can be listed to round out the therapy program: (a) a diet of unsaturated fatty acids, (b) weight reduction in the obese with conservation of existing blood supply, (c) long term anti-coagulant therapy (dicumarol), (d) development of collateral circulation with the elimination of vasospasm by the use of drugs, priscoline, arlidin, whiskey, and other measures such as sleeping with the head of the bedstead elevated four to six inches, Buerger's exercises or walking daily to tolerance. To reduce the metabolic demands of the tissues the usual careful foot hygiene should be observed, avoiding getting the feet cold or damp, excessive heat and tight shoes. The use of clean socks, careful foot hygiene, care of initial infections, appropriate antibiotics as shown by culture are indicated. The patient who does not require normal walking ability and is not threatened by necrosis is advised to care for his feet and await what collateral circulation will develop.

SURGERY OTHER THAN AMPUTATION

1. Sympathectomy: While arterial grafting should offer the greatest chance in restoring circulation to the ischemic leg, sympathectomy is still a useful adjunct. Its ability to increase blood flow to muscle is less than its ability to increase blood flow to

skin in the normal person. Hence, many feel that it has little to offer to the patient with intermittent claudication. It may, however, by improving the nutrition of the skin, help stave off the infections which often follow trivial trauma leading to necrosis and ultimate amputation.

2. *Arterial graft:* When a preliminary angiogram shows a segmental blockage in a major vessel, the chance for a graft to restore the circulation is best. We have used the bypass method most frequently. The graft is inserted end of graft to side of vessel above and below the block. Such a bypass graft does not disturb the existing collateral circulation and it is easily tolerated by the patient without fear that if unsuccessful it may make a poor situation worse. We have not routinely used routine long term postoperative anti-coagulants to prevent additional occlusive episodes as some have recommended.

3. *Thromboendarterectomy:* Thrombus and arteriosclerotic plaques may be excised from accessible segments of peripheral vessels by means of arteriotomy and dissection of the involved intima and obliterated segment. The wall is resutured over a proper sized catheter. We have reserved this method for the patient with small discrete and well localized occlusive segments and have preferred to use the bypass procedure in the majority of the cases.

Thromboangitis Obliterans

There is increasing evidence to suggest that many patients previously diagnosed as Buerger's disease or thromboangitis obliterans actually had segmental arteriosclerotic occlusive disease. Patients in the third and fourth decades with characteristic manifestations of Buerger's disease should be studied by means of arteriograms. Many writers have now reported complete relief of the difficulty by endarterectomy or bypass grafts. Certain of these cases show small vessel involvement of a segmental nature associated with moderate to severe pain and chronic infections of the ends of the digits. These patients typically improve with the cessation of smoking only to suffer recurrence of their complaints when tobacco is resumed. Obviously tobacco should be prohibited. A strong doctor-patient relationship may help encourage them to stop smoking.

Arterial Embolization

The goal of treatment here is preservation of function; therapy which preserves the limb, but in which the usefulness of the limb is severely compromised must be regarded as unsuccessful. Acute symptoms are seen in about half of the cases; in others the onset may be insidious and many of the symptoms are markedly reduced. The usual picture described is that of abrupt onset in a patient who has a history of old or recent myocardial infarction, mitral stenosis or auricular fibrillation. Sudden pain occurs in the extremity, followed with pallor of the skin, pulses below the block are absent, and some degree of motor and sensory paralyses is seen. The common sites of lodgement are the bifurcation of the aorta, the bifurcation of the common femoral artery and the popliteal artery.

Differentiation between embolization and acute arterial thrombosis may be very difficult. In the latter, sympathetic block may be helpful, but angiogram and surgical exploration should be considered. The earlier surgery can be performed the greater the chance for restoration of circulation. If the angiograms in either case show a good distal arterial tree beyond the point of occlusion, it encourages one to hope for successful surgery. Surgery usually should be withheld in the patient whose general condition is poor, such as one who has suffered a major cerebro-vascular accident, myocardial infarction, etc.

Acute Trauma and Other Conditions:

If amputation is necessary here, it simply means preserving the optimal length of the extremity if possible for the fitting of a prosthesis. In amputations for chronic osteomyelitis, such as following compound fractures, tumors of the extremities, useless deformed limbs, etc., one may be able to

pick as an amputation level the so called "sites-of-election."

Operative Considerations

As in surgery of the upper extremity, there seems to be more attention being paid now to the preservation of as much of the lower limb that can possibly be saved. Except for the great toe, the other toes can be removed without sacrificing much in the way of walking function. Leaving the great toe alone, however, can pose the problem later of a marked hallux, despite the continuous use in the shoe of a padded sponge rubber supplanting the missing toes.

Transmetatarsal Amputations

Section of the foot through the distal metatarsals has been regarded about the only practical foot amputation, except for the Syme's operation. The techniques of these operations can easily be reviewed in any surgical textbook, so that the actual operative procedure will not be repeated here. Our experience with transmetatarsal amputations has not been very extensive. We have had little opportunity in our types of cases to attempt this operation. On the few occasions it has been done there has been frequent difficulty in accomplishing a healed stump that can take the brunt of weight bearing. This may be due to the type of situation that was encountered. Theoretically, if one has sufficient foot to enable one to walk and balance oneself and a prosthesis can be fashioned for enhancing function and cosmetic appearance, this type amputation should have a place in ones surgical procedures.

Syme's Amputation

This amputation has never been as popular in the United States as it reportedly has been achieved in Canada and England. While it is included in all the surgical text books, it is my personal experience to have seen very few of these amputations done and have had very little opportunity to observe many patients in the immediate or remote postoperative period. There seems to be a small revival of interest in this amputation in some areas currently in the United States.

The Objections

Some of the objections to this useful amputation have been that there is a loss of some 2½ to 3¼ inches of the length of the normal limb. Now while this Syme's amputation which removes the foot at the ankle while retaining the tough heel pad for weight-bearing will provide one of the most satisfactory end-bearing stumps known, due to the above mentioned loss of length, the gait without a prosthesis is lopsided. Moreover, absence of the forefoot causes drop-off at the end of the stance phase, and loss of normal ankle function produces knee extension during weight bearing. A functional prosthesis for the Syme amputation must lengthen the limb therefore so as to match the normal leg in the standing position, supply a forefoot to increase effective leg length at toe-off and provide the equivalent of plantar and dorsi-flexion.

The Functional Prosthesis

The conventional Syme prosthesis, with laced leather socket and metal side bars, fulfils all the functional requirements but it too has a number of disadvantages. The sidebars are subject to frequent breakage. The leather socket deteriorates and loses shape. There is xcessiv bulkiness in the already broad area of the malleoli. Excessive patient weight often requires auxiliary suspension. The shoe on the normal side often must be elevated to provide clearance for the ankle joint assembly. Several years ago in Canada certain improvements were made in this conventional Syme prosthesis creating a prosthesis lighter in weight, better in appearance, comprising a plastic laminate socket with no ankle joint attached to the so-called "SACH" foot (solid ankle cushion heel). This prosthesis, the so-called Canadian type, besides being lighter and less bulky at the ankle than the conventional Syme prosthesis is sai dto exhibit fewer structural failures because of a plastic reinforced laminated structural design, requires little or no auxiliary suspension, is free of noise and is completely resistant to weather and perspiration. Comfort is improved owing to better heat dissipation and

to reduced shock at heel contact. The price of the prosthesis is less and the range of possible foot heights is adequate to fit the range of Syme stump lengths without elevating the shoe on the normal side. It is claimed that the technique may be adapted for the use with the up to now largely unaccepted and unpopular Boyd, Pirogott and Chopart amputations.

Below Knee Amputations

No prosthesis can begin to compare with the patients own functioning knee joint. It is primarily for this reason that a serious effort is made in all feasible cases to perform a below knee rather than higher amputation. While five to seven inches of stump length is advocated for adequate fitting of a below knee amputation, some prosthesis makers have managed on somewhat less than this. This level amputation often presents many difficulties in securing healing and a good functional stump. Since the tibia is just beneath the anterior skin flap, little protection can be afforded over it regardless of how smoothly the distal end of the tibia may be bevelled. Various suggestions have been made as to fashioning the skin flaps. Some have advocated placing the sutured skin scar centrally, some place it posteriorly and other have suggested taking medial and lateral skin flaps. Whether preserving as much medial skin as possible enhances venous drainage, regarded by some as a factor in healing, has not been ascertained in our personal experience. Suction sockets have been used with satisfaction by some patients in these below-the-knee amputees. Certain limitations are still met with in this type of prosthesis; it seems to be more popular for use with the above knee amputees.

Operative Procedure

On the operative procedure, positioning the patient prone, face down, enables the operator to do the amputation with less technical difficulty. The knee is flexed to 90° bracing the knee in this position, and allows one to see around the circumference of the calf and lessens the frequent twisting and maneuvering of the leg necessary in the more conventional recumbent face up position. Our skin flaps are usually of about equal length allowing the scar to be positioned at the end of stump. An attempt is made to cover the tibia, as much as possible, by suturing the tailored muscle fascia layer over the tibia. We bevel the distal tibia, cut the nerves high and let them retract, and bring the edges of the skin flaps together without tension with a minimum of skin sutures. A thin strip of vaseline gauze over the suture line minimizes "sticking" of the first redressing. Care is taken not to apply the stump dressing with any pressure that might jeopardize the skin flaps. Plain bandage may be used if one wishes to avoid the tendency to apply an Ace bandage with a certain amount of undue pressure. Redressing in 24-48 hours will obvioate an undue tension on the stump Ace bandage has been used. I have seen with postoperative edema or swelling if an several cases in previous years where the skin flaps were partially lost due to undue presssure of the Ace bandage following normal postoperative reaction and swelling of the stump. In some patients a posterior plaster split will prevent flexion of the knee which many of these older patients tend to acquire, despite repeated admonishing.

Above Knee Amputations

There are fewer complications encountered in the above knee amputations than in the below knee amputations. Healing is usually accomplished per primam, unless the circulation at the level selected is inadequate, or if because of age or poor personal hygiene the patient is unable to cooperate with maintaining an adequate sterile bandaged stump. Some of our patients have been confused, have pulled off the dressings and, if they are incontinent of bowel or bladder, the stump is often exposed to all sorts of bacterial contamination. One above knee amputee developed a gas gangrene type of infection several years ago believed due to circumstances cited above which demanded prompt and adequate radical incisions and drainage and drug therapy; fortunately he recovered.

Drains are used in any of these amputations of the lower limb if one feels there are indications for their usage. Each case is decided on its individual aspects. On occasions even these above knee amputations have failed to heal and revision or higher amputations have had to be carried out. It might be mentioned that some of our patients are admitted in poor general condition and nutritional deficiencies and it is in these individuals naturally that most of our problems and complications occur.

POSTOPERATIVE CONSIDERATIONS

The main postoperative consideration is to seek as early and as complete rehabilitation as is possible for each patient. If the patient is facing an inevitable amputation we try to encourage him by showing him one or several well rehabilitated amputees who are using their prostheses and there are usually several of these always in the hospital. If none is in the hospital, one or several such patients can be recalled and they are usually willing and anxious to show how they can get about and are glad to encourage the prospective amputee on his successful recovery. A program of exercises can be initiated for the preoperative, operative and postoperative periods. We are fortunate in haivng a Physical Medicine and Rehabilitation Service in our hospital with experienced personnel which is an important and valuable asset in the patients' postoperative care. Graduated arm and leg exercises are instituted, and these are maintained to reach optimal use of the various needs of balance and locomotion.

Early Rehabilitation Important

The patient is taught to walk with a normal gait and any adjustment in the fit of the prosthesis is usually completed prior to the patients' discharge. In the older patient a pylon or long leg brace can be used early to encourage the patient to realize he is again erect and walking. This helps prevent them losing the desire to get about again, which many of them will do if left too long to their own devices. To prevent their fear of falling, they are trained to fall on a mat in such a way as to prevent them hurting themselves. This gives them more assurance in the use of the prosthesis. In recent cases an ischial weight bearing long leg brace has been recommended with a locked or rigid knee. As mentioned earlier this allows the patients to become erect more quickly and gives them considerable satisfaction. Some of the patients in the older age group are so satisfied and get so used to this brace that they are reluctant to be changed to a regular prosthesis.

The Bilateral Amputee

Nothing has been said of the bilateral amputee, and this situation is, of course, not infrequently encountered. Obviously bilateral below knee amputees will do better than amputations above the knee. Even if some situation prevents them wearing a prosthesis, having some additional below knee stump allows a certain better leverage as in turning in bed. Many of the patients make a point of wanting the amputation stumps match in length either above or below the knee. Disarticulation amputations at the knee are not very often required. Even these can be fitted with a prosthesis and satisfactory use can be obtained, but this poses certain problems for the limb maker which they would rather avoid if possible.

The Surgeon Sees It Through

There is no question then that this problem will always be with us. It is dubious at this time that any real prevention of vascular degenerative changes can be prevented since we are not sure of their etiology despite the many theories that have been advanced. The success of grafts have had limited and sometimes short-lived before clotting occurs. Once the surgeon and patient see and accept the need of amputation, it is a responsibility and a kindness for the surgeon to follow the patient through his convalescence until he has gained optimal rehabilitation. Patients are grateful to have the continued interest of their doctor rather than to be turned over completely to the sole care of the limb maker.

GROUP THERAPY WITH CHRONIC PSYCHIATRIC OUT-PATIENTS*

● **A discussion of group psychotherapy with chronic psychiatric patients unable to maintain other than a marginal adjustment to life. The author presents generalizations which help explain a psychotherapist's observation in such a group.**

HOWARD J. SHEAR, PH.D.**

This paper concerns our experiences in out-patient group-psychotherapy with patients who have had periodic psychotic episodes. The group grew out of a need to provide help for a growing number of chronic patients, who while severely malfunctioning psychologically and unable to sustain employment are able to maintain at least a marginal adjustment in life. Characteristically these patients had a psychotic break with reality while in the military service, recovered sufficiently to return to society, but periodically lose control of themselves, and are hospitalized for a short period. Despite a pension from the government for their service-connected disability and opportunities to receive medication and brief supportive psychotherapeutic conferences on an out-patient basis, they remain a source of anxiety to their families and community when not in the hospital. Many take limited advantage of the out-patient resources. In order to help these men further, we decided three years ago to try to engage some of them in a group therapy experience at our Mental Hygiene Clinic.

We arbitrarily invited 4 potential candidates to attend the first meeting. As time went on, other patients were invited. Because of the difficulty which some of these patients have in becoming part of a group, it was suggested by Julia Mayo, D.S.W., psychiatric social worker at the VAH, that some of the psychiatric in-patients, whom we felt had the above-mentioned characteristics, sit in with the out-patient group. Upon discharge from the psychiatric ward, they were then invited to be members. With all patients, membership was voluntary, although direct suggestion was made to some to give the group a try. A woman psychology trainee has been sitting in with the group, which seems to have worked out quite well in terms of a valuable experience for her and an additional, meaningful, therapeutic force in the group.

As the group continued to function, certain characteristic attitudes and behaviors related to the extremely difficult time these patients have in belonging to social and work groups became more and more apparent. Besides being unable to sustain employment, the social life of these patients has been minimal. Holding the attitudes they do or behaving the way they do would

*Searles A. Grossman, Ph.D., Chief Psychologist at the Veterans Administration Hospital, Wilmington, was helpful in the formation and functioning of this group.

**Howard J. Shear, Ph.D., Clinical Psychologist, Veteran's Administration Hospital, Wilmington.

probably be either rejected by many people within most social and work groups, and/or the pressures within these groups for the patients to change their attitudes or behaviors would be so strong that these patients would feel extremely anxious and uncomfortable. As a last resort in their desperate attempts to defend themselves against these pressures to change, they would probably withdraw from these groups.

Not truly belonging to any social or work groups, these people are not able to satisfy or soon lose hope of satisfying a variety of needs common to all people, the satisfaction of which and/or the striving to satisfy allow a person to function as a human being. Social and work groups are important environments of human beings, and individuals completely detached from any such environments cannot be persons. The situation of the marginally adjusted patients thus takes on the character of a vicious circle. Unable to satisfy or to sustain hope of satisfying needs common to human beings leads to a greater intensity and pervasiveness of the very behaviors which are related to the obstruction of belonging to social and work groups in the first place.

Rigid Patterns

In reflecting upon these attitudes and behaviors, it is difficult to evaluate their etiology except to speculate that in childhood the attitudes and behaviors of the significant people around them were important factors in their development. However, the present functional significance of these attitudes and behaviors in the lives of these patients, their self-perpetuating nature, and the support for these attitudes and rigid patterns of behavior which they get and invoke from others is less difficult to understand. The seven patients presently active in this treatment group are uniquely individual, and the more the writer gets to know them, the more aware of their individuality he becomes; however, they all share this common characteristic of rigid behavior or attitude that a great many people in most social and work groups find unacceptable. It is important to note that one can observe psychologically healthy people on occasion behaving in the same way or expressing the same attitudes. What distinguishes these patients is that their attitudes and ways of operating are very, very rigid, pervasive, intense, continuous, extreme, and "not subject to change."

The Egocentric Attitude

One attitude observed in these patients which seems to cover a range of emotional reactions has been egocentricity. These people are preoccupied with themselves, their own feelings and ideas, and do not allow themselves to experience the feelings and thoughts of the other people in the group or express care or strong interest in them. However in our group, rather than being rejected, egocentricity has generally been accepted which has resulted in the patients feeling that this group is a social situation where it is "safe" to be a member. It should be mentioned here that while acceptance usually implies liking or approval, as used here it means an emotional willingness to live with something. Because their egocentricity has been accepted, the patients then place value on their group and the people in it. Besides finding their oft-rejected egocentricity accepted, they also experience reactions which are not egocentric from others in the group, where at least one other person is honestly interested in them. These experiences lay the groundwork for a patient developing interest and care for something outside himself which, in effect, diminishes egocentricity. These are probably the mechanisms through which a child becomes less egocentric. Most of these patients are just beginning to give up their egocentricity, while in some there appears to be no development in this direcion.

Illustrating the kind of involvement these patients have in this group are the following incidents: In one of the sessions, some of the patients verbalized the question, "Why do I continue to come to these meetings?" One patient cross-examined other

patients to find out why they attended. A patient responded, "It gives me a chance to blow off steam." Another answered, "I learn things." Some verbalized puzzlement and couldn't say why. In another session, the patients spent a considerable amount of time evaluating psychologists. They were very careful to talk about psychologists in general and overall expressed positive attitudes. However, one of the patients, although very controlled, allowed himself to criticize psychologists for a variety of inadequacies and kept challenging the therapist to take issue with him through direct questions about his criticisms. After a while of indirect, negative evaluations of psychologists, he turned to the therapist and respectfully said, "Psychologists do know how to listen."

"Omnipotence" a Challenge

Another attitude which seems to lead to rejection or "intolerable" pressure to change from a great many people might be called omnipotence. In this group, these patients have been extremely controlling people, insisting and demanding emotionally that reality be a particular way. If someone "dares" to try to change what is reality for them, they feel extremely threatened and will defend themselves in some way. In our group, the most usual defenses against such a challenge has been for the patient under "attack" to become more and more autistic in his thinking and detached emotionally. For example, there have been occasions when a more aggressive patient in the group quite authoritatively stated an opinion designed to change the views of others in the group. Another patient aggressively took issue with the authority of the first patient, although consciously feeling that he was having a non-aggressive conversation. As the "unconscious argument" increased in tempo, rather than each participant "relaxing" and experiencing the reality of the other person and himself as they were, each participant became more and more autistic in his ideation and increasingly unaware of the existing feeling. Rather than really listening, he was busy organizing his own thoughts, so that when the other person stopped for a breath, he would be able to state his opinion. Focusing on the abstract has been a general characteristic of this group interaction. These people did not attend to the concrete "gut" feelings taking place, but concentrated on the abstract, "up-in-the-clouds," ideation.

Defenses Built Up

To preserve omnipotence, autistic thinking and emotional detachment were used as defenses against any reality in the group which would "destroy" omnipotence. For example, there were communications in the group which were not really designed to change, "attack," another, as in the above example, but were more narcissistic, attention getting, or attempts to "blow off steam." If a listener could allow himself to experience the reality of these communications and their effects upon him, it would lead to a decrease in omnipotence. Because the "listeners" in the group "had to" maintain their omnipotence, they either autistically interpreted the event so that it would fit in with their preconceived cognitive system or they became so detached emotionally that they do not experience "new" feelings. An example of this was noted when one patient characteristically and omnipotently sought to control reality so that independent, assertive, aggressive, work needs did not exist, while another patient omnipotently sought to control reality so that dependent, direct asking, passive, love needs did not exist. When the first patient expressed himself, the second autistically interpreted the first's thoughts accordingly to his own way of controlling reality, while if the second patient expressed himself the first did the same thing. Emotionally, each was so repressed and detached that they could not let themselves have feelings about each other, for if they allowed themselves to become emotionally involved, the very needs, the existence of which they were seeking to deny, would be felt and experienced. One apparent effect was a reduction in omnipotence through an occasional expression of feeling by a group member which some patients were omnipotently controlling. The need to be omnipotent is

reduced because these patients experience that the group was not shattered; there were no "terrible" consequences if these feelings existed.

Three Patterns

There are three general patterns of behavior employed by these patients to preserve their omnipotence, all of which sustain egocentricity and evoke rejection or "intolerable" pressures to change from others. Each way of operating attempts to control, manipulate, or coerce reality to be the way it "must" be. They are each passive in the sense that the person cannot decide to react this way or not, but he "must" behave in this way to keep comfortable, maintain his equilibrium, control reality. Therefore, he "must" passively react, go along, in this particular way rather than actively choosing to do so. This is contrasted with an active way of operating in which the person is not "forced" to react in a particular way to prevent his entire world from shattering, but in a relaxed way "chooses" appropriately to get away from it all, love, work, etc.

In the first pattern, the patient passively withdraws. If any event comes up that "cannot be accepted," the standard maneuver is to physically or psychologically withdraw. The person seems to say to himself, "If I am alone or have no feeling, everything will be all right." The second maneuver for handling an unacceptable reality is a passive dependent reaction. Here the person seems to say, "If I am taken care of or am weak, everything will be all right." The third way of controlling unacceptable realities is by behaving in a passive aggressive manner. Here the person seems to say, "If I am the caretaker or am strong, everything will be all right." By using one of these ways of operating, combinations of them, or changing from one to another when "appropriate" the patients in this group seemed able to maintain their omnipotence. These maneuvers are generally unconscious.

At the present time there are seven patients who attend our group, with former diagnoses ranging from catatonic, undifferentiated, paranoid Schizophrenia to psychotic depression. Six of these men are 40 or over, two being in their sixties; one is in his late twenties. One is Negro. These men seem to find in this group a social situation where they can belong and socialize, because they experience acceptance of their egocentricity and omnipotence, discover that others in the group are interested in them and care about them, and find that there are varied feelings which can exist without catastrophic consequences. If nothing else, this group seems to provide an emotional support which helps some of these men stay out of a hospital; but in addition there does seem to be some slight reduction of egocentricity and omnipotence in a few of these patients.

Psychiatric History

The following is a brief, very condensed sketch of the psychiatric history of one of these patients. He is the Negro in the group, 49 years old, divorced, has two children, and before service worked as a semi-skilled laborer. He was inducted in 1942 and separated in 1943 for an NP condition. Returning home, he refused to work and tended to be seclusive and to worry. After four months he was committed to the state hospital and his condition diagnosed as a Schizophrenic Reaction. After eleven months he was hospitalized in our NP atric hospital. He was discharged from this hospital after eight months on a trial basis, and was to report to our Mental Hygiene Clinic. Here he received medication and supportive interviews, but after several months he was hospitalized on our NP ward. Upon discharge, he would on occasion come in to the Clinic for medication and a supportive interview but discontinued this despite his need for support. In December 1956, he came to the Clinic for help, and was assigned to the present group. Since this time, he has regularly attended the group once a week. He has maintained a marginal adjustment without further hospitalization, and on a number of occasions has stated that he feels that the group has kept him out of the hospital. Quoting from an independent psychiatric evaluation made

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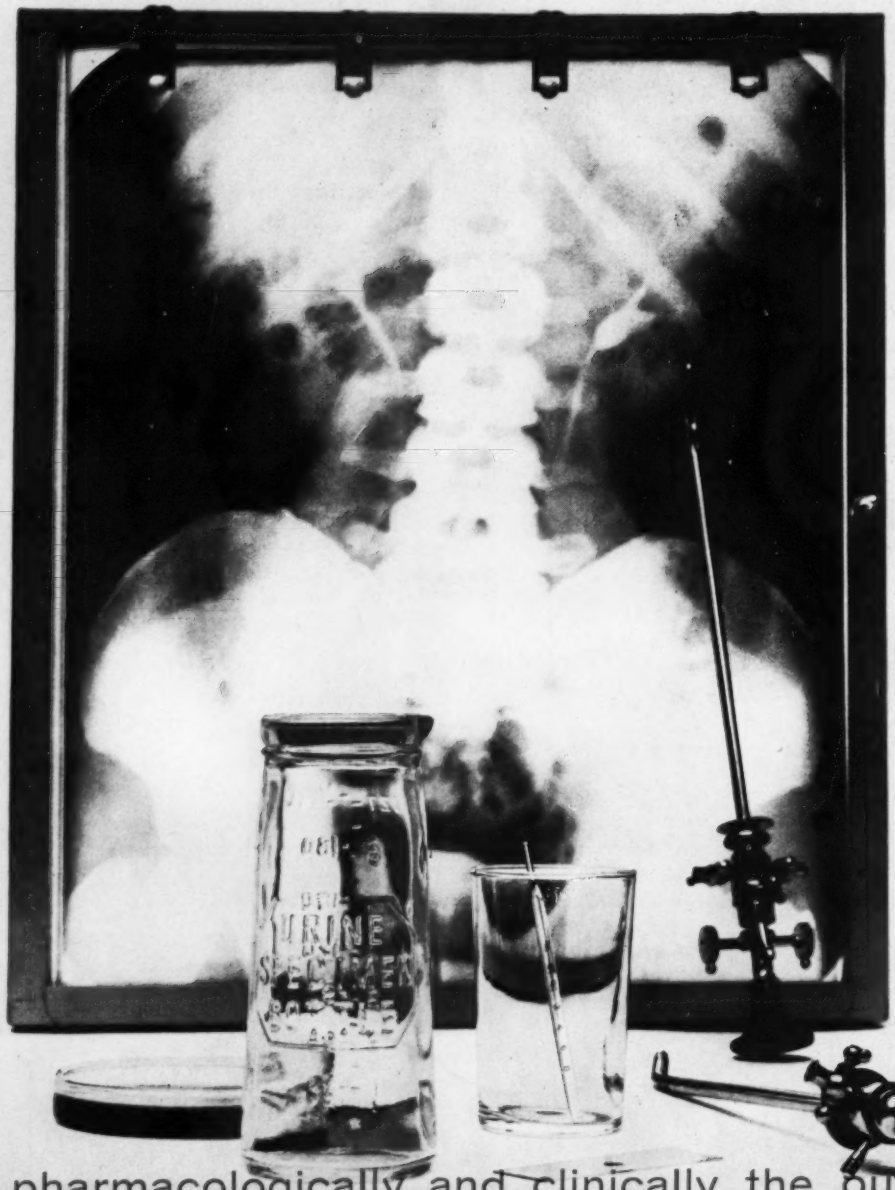

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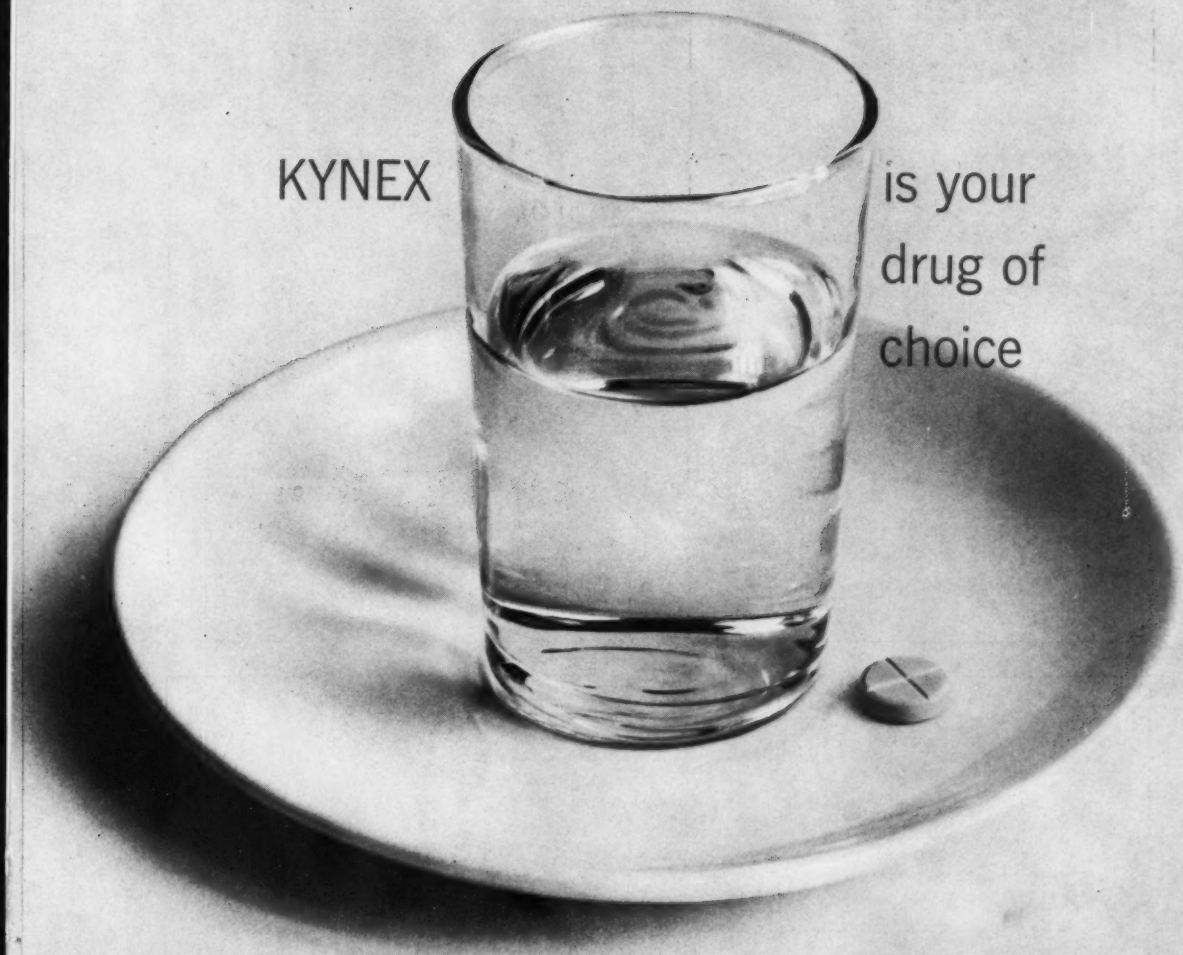

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on 11/5/58 by D. A. Rovito, M.D., Chief, Psychiatrist. "This veteran appears less disorganized in his thinking at the present time. The group has had the effect of facilitating the exchange of ideas and feelings, and alleviating mistrust. . . . he has gained at least some intellectual insight, and the ground has been laid for better socializing."

On occasion during the group meetings this patient has verbalized how he formerly believed that it was entirely up to the doctors to help him, but he now feels each patient has some responsibility to help himself. When he first joined the group, someone had to drive him to the hospital because he was too anxious to travel alone by bus, but with gentle suggestion, patient waiting for him to change in his own unique way, he now rides the bus to the meetings. He does some brief part-time work like house painting or washing cars, and it will be interesting to see if there will be vocational improvement with time.

There is one aspect of working with such a group which the writer has found to be of valuable personal experience. Although these men are extremely egocentric and omnipotent and generally estranged from the stream of social living, these very processes seem to deepen their sensitivities to "basic," crucial, human needs which for many psychologically healthy people are almost lost from awareness in their active involvements with life. Being aware is certainly not an indication of "goodness" as more healthy people unconsciously satisfy a variety of needs in the very process of actively living. Despite their extreme sensitivity, these patients cannot creatively and adaptively satisfy or strive to satisfy these "basic" needs. They are much too passive, repressed, and cut off from life. However, massive repression, chronic frustration, self preoccupation, and compulsive needs to control reality lead to their becoming so sensitive to unconscious forces and full of pent-up expressiveness, that they may on occasion either vividly and overtly, or with the symbolism of a dream, act out and reveal some vital human characteristics.

SENIORITY AMONG MEDICAL SOCIETIES

WILLIAM H. KRAEMER, M. D.

The seniority among the medical societies in the United States has always been debatable which was due to the fact that many of the medical societies were founded under the government of providences or colonies subject to the British Commonwealth prior to the American revolution.

Among the principal medical societies in Colonial America were:

Boston Society	1735
New York Society	1749
Philadelphia Society	1765
New Jersey Society	1766
New York Society	1769

Among the principal medical societies operating under a charter of the respective States of the United States are:

Massachusetts	1781
(Nov. 1—Charter signed by John Hancock, first Governor of Massachusetts)	
Delaware	1789
(Feb. 3—George Read, acting Governor)	
South Carolina	1789
New Jersey	1790
New Hampshire	1791
Connecticut	1792

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●This case emphasizes the importance of a *careful neurological examination in the evaluation* of patients exhibiting psychiatric symptoms in connection with migraine headaches.

HEMANGIOMA OF THE BRAIN SIMULATING THE MIGRAINE SYNDROME

D. A. Rovito, M.D.*

Martin M. Mandel, M.D.**

The migraine syndrome is characterized by unilateral headache, with periods of recurrence as well as gastrointestinal and ocular manifestations. There are, however, many types of unilateral headache which simulate the migraine syndrome, but which in reality may be produced by an intracranial aneurysm or neoplasm.[3,4,6] Frankel[1] reported the important relationship between cerebral aneurysm and migraine. The occurrence of a tumor or an arteriovenous malformation may also produce a headache that is indistinguishable from migraine and the following case is presented to emphasize a lesser known cause of this type of headache.

Report of a Case

This 33-year-old man was admitted to the Veterans Administration Hospital in Wilmington, Delaware on June 6, 1958 with the complaint of intense headache. He was first seen in the Mental Hygiene Clinic in June 1955 because of unilateral headaches, which occurred at varying intervals from once in three months to as often as once or twice a week; usually the headaches persisted from one to three days. They were located over right side of the head and produced a throbbing sensation behind the right eyeball and were accompanied by nausea and vomiting. Occasionally these were preceded by visual disturbances. Little relief was obtained with Cafergot and other analgesics. He felt that these headaches were of greater intensity and of a different distribution from his usual "migraine" headaches.

His personality was that of a perfectionist, meticulous and ambitious, but easily upset by minor frustrations. A presumptive diagnosis of migraine with anxiety state was made.

Intensive psychotherapy was instituted, but his headaches persisted. Exacerbation of headache, accompanied by a new symptom of dizziness, led therapist to recommend further studies.

Physical examination upon admission to the hospital revealed an acutely ill white man, who was complaining about his severe headaches, B.P. 128/74. Systemic review normal except for the nervous system. Pupils were unequal in size, the right pupil being larger than the left. The right pupil was also dilated, fixed to light and accommodation. The right eyeball showed paresis of inward-outward rotation and impairment of upper rotation. The patient stated: "I see your finger twice," when one finger was held up as he looked to the left and right. The optic discs appeared to be well outlined, although there was some haziness of the nasal margin of the right optic disc. There was weakness of retraction of the left corner of the mouth and weakness of the left hand grip. Deep tendon reflexes ap-

*Chief of Neuropsychiatry, V.A. Hospital, Wilmington, Del.
**Instructor in Neurology, Jefferson Medical College, Phila., Pa.

pared to be bilaterally active and equal. No Babinski or other pathological reflexes could be elicited. These findings were indicative of an incomplete right oculomotor nerve paresis and right abducens nerve palsy. An intracranial aneurysm, involving the right internal carotid artery with rupture producing a subarachnoid hemorrhage was considered a likely diagnostic possibility. An intracranial neoplasm also had to be excluded.

The hemogram and urinalysis were normal. The blood serology was negative. A lumbar puncture was performed and the spinal fluid which was yellow in color was obtained with a pressure measuring 600 millimeters of water. The spinal fluid protein was 165 milligrams per hundred cubic centimeters. Roentgenogram of the skull was normal. An electroencephalogram revealed a paroxysmal cerebral dysrhythmia. He was transferred on June 12, 1958 to Veterans Hospital, Perry Point, Md. for special neurosurgical investigation and treatment.

Bilateral internal carotid arteriography demonstrated no abnormalities of the internal carotid, middle cerebral or anterior cerebral vessels. A ventriculogram was reported normal.

At operation on June 23, 1959, an arteriovenous malformation was found in the region of the cysterna magna. A vertebral arteriogram was performed and these roentgenograms showed an arteriovenous malformation arising from the posterior inferior cerebellar artery. This malformation appeared to be resectable and the patient was returned to the operating room on July 2. At this time a vermiform vascular anomaly was found under the right cerebellar lobe. This was resected but the patient expired several days after surgery.

At autopsy, the brain was swollen and showed old and recent bleeding over the hemispheres and cerebellum. An arteriovenous aneurysm was noted in the fourth ventricle. Microscopic examination revealed a mass of blood vessels, consisting of vascular spaces lined with swollen endothelial cells and endothelium packed together tightly without any lumen, consistent with an hemangioma.

Discussion

This case did not fill the criteria of typical migraine, but had many of its features, namely: aura; one-sided headache; nausea and vomiting.[5,7] Frequent psychiatric interviews unfolded the psychological correlates of the migrainous psychosomatic entity. It has been stated that migraine[8] in a young person for whom no relevant family history is obtained, should arouse suspicion of aneurysm. Wolff[2] felt that aneurysm and migraine could be independent and coexistent, although he postulated that repeated migrainous attacks could affect the structure of cerebral blood vessels.

This case also emphasizes the importance of a careful neurologic examination in the evalution of a patient with many psychiatric symptoms, as organic factors may be overlooked and the complaints attributed to a psychogenic basis. The progressive nature of this man's illness was an important factor in pursuing further neurologic investigation including arteriography.

Summary

A case of an arteriovenous angioma is reported in a patient who suffered from migraine headaches for many years, but during recent months exhibited a change in the distribution of his headache and the appearance of a new symptom: dizziness. He had neurologic manifestations of an oculomotor and abducens paresis. An arteriovenous angioma was found at surgery and confirmed by gross and microscopic examination.

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● **Mental disturbances can accompany liver disease. The author cautions that insulin shock therapy may well add to the impairment of liver function and diminish the patient's hope of recovery.**

HEPATITIS CIRRHOSIS CANCER

Report of a Case

WALKER STAMPS, M.D.

This case is presented because it has an unusually well documented medical history starting initially with hepatitis, followed by cirrhosis, and later primary bile duct hepatoma of the liver. The association of malignant liver tumors with cirrhosis, from any cause, is well known but in this instance a viral origin may also be suspect[1].

Background

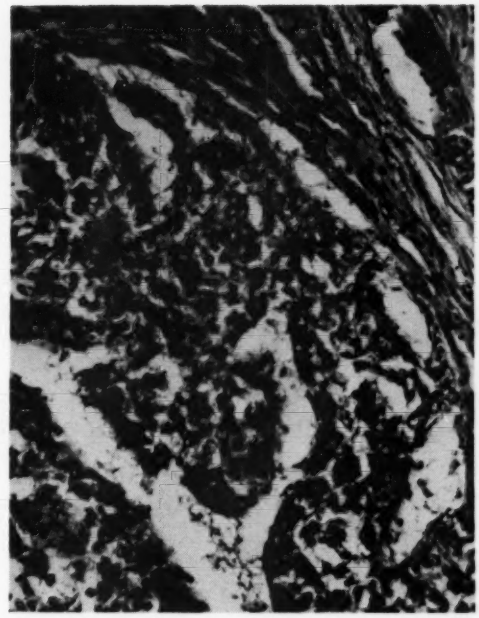
In October 1947, when seventeen years old, this white soldier was admitted to the U. S. Army Hepatitis Center at Bayreuth, Germany, because of jaundice "to a shade of green." For two months he was deeply icteric, febrile, at times stuporous but never comatose. There was a 40 pound weight loss. After six months he developed a mental disturbance classified as an anxiety reaction, and was transferred to a mental care institution where he was given insulin subshock therapy over a period of approximately one month. He was discharged from the Army after a total hospitalization of twelve months. Two liver biopsies showed hepatitis.

He felt well until June 1949, when he developed weakness, anorexia, chills, fever, light colored stools and dark urine. He was admitted to the Valley Forge Army Hospital where he remained for approximately six months, with a diagnosis of hepatitis, chronic, without jaundice and minimal cirrhosis of the liver as demonstrated by liver biopsy. He then remained well until March 1956, working regularly as a prison guard at Delaware's "workhouse." He consumed a regular diet except for omission of cabbage, tomatoes and grease, because they induced belching. Four days before admission to the Veterans Hospital at Wilmington, he developed slight throbbing pain in the right upper quadrant and right epigastrium. The pain was aggravated by motion of the trunk and was accompanied by frequent eructation, slight nausea, but no vomiting. The patient became alarmed because of the similarity of this pain to that of his original illness. There had been no jaundice or change in color of urine or feces; there was no alcohol intake. A physical examination was generally negative; the liver was not enlarged to palpation.

Laboratory Data

Urinalysis, normal. RBC 4,300,000, hemoglobin 15.8 grams, hematocrit 44.

* Assistant Chief, Medical Service, Veterans Administration Hospital, Wilmington, Delaware



LIVER BIOPSY

The central area consists of tumor cells. Connective tissue of cirrhosis appears at the upper right.

Kahn, negative. Serum Bilirubin 1.8. Thymol Turbidity, 1 unit. There was no retention of Bromsulfalein. Cephalin flocculation, negative. Cholesterol 200 mgm%, total protein 8.1, albumin 4.7, globulin 3.4, ratio 1.38. Liver biopsy showed an increased amount of fibrous connective tissue and many proliferated bile ducts; the connective tissue was heavily infiltrated with polymorphonuclear leukocytes, round and plasma cells. The polymorphonuclear infiltration was believed to indicate some degree of either cholangitis or hepatitis.

After one month the patient returned to work, feeling well except for "a lot of trouble with gas." In February 1958, he was readmitted complaining of soreness over a wide area in the epigastrium and a fourteen pound weight loss. A very irregular hard liver edge was felt to descend two finger breadths below the right costal margin. The spleen was not felt.

Laboratory Data

Serum bilirubin 0.5, alkaline phosphatase 7.5, thymol turbidity 1 unit, cephalin flocculation 2+ (48 hours). A total protein 6.3, albumin 2.9, globulin 3.4, A/G ratio .85. A cholecystogram was normal. Liver biopsy showed portal cirrhosis and in addition showed the presence of numerous small areas in which the parenchyma was infiltrated with tumor cells, growing as solid masses of anaplastic cells with large hyperchromatic oval nuclei. Occasional mitotic figures were seen.

In May 1958, the patient expired following a massive gastrointestinal hemorrhage.

Autopsy Findings

The stomach was markedly distended and completely filled with clotted blood, having a volume of about 2 liters. There were esophageal varices present and in the lower esophagus the veins were plainly seen but there was no visible bleeding point. The liver weighed 4,150 grams. It was lobulated and nodular. Five of these lobules had a size of approximately 7 x 5 x 4 cm. These lobular masses consisted of regenerated liver tissue. Sections through the main mass of the liver revealed that over 75% of the parenchyma had been replaced by white granular nodular tumor tissue. The small amount of remaining liver tissue possessed a different color, being yellowish-brown, more opaque, fibrotic and nodular, suggesting the appearance of portal cirrhosis. The portal vein measured 2 cm. in diameter and was completely occluded by a recent red thrombus.

Diagnoses:

1. **Primary bile duct hepatoma.**
2. **Portal cirrhosis of the liver.**
3. **Terminal broncho-pneumonia and edema of the lungs.**

This case also serves to remind us of the mental disturbances that not — infrequently accompany liver disease. The insulin shock therapy may have further impaired liver function and diminished his hope of recovery.

REFERENCE

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CLINICAL-PATHOLOGICAL CONFERENCE

BY TRANS-ATLANTIC

ROYAL SOCIETY OF MEDICINE

Case supplied by the Postgraduate Medical School, Hammersmith, London.

The patient, a 32 year old man, when admitted on September, 11, 1957, had had intermittent pain in the right loin for two to three months, which came on at any time of day or night and lasted for minutes or hours. Pain was steady and fairly sharp and was not made worse by sudden movement. None occurred on the left side. The pain was associated with shivering and sweating and by occasional vomiting.

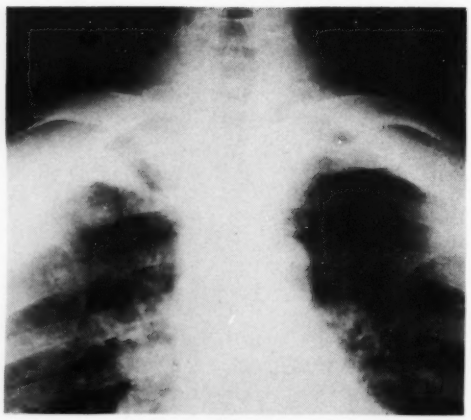
From the outset there had been frequency with nocturia. There had been several attacks of haematuria during the illness, the most severe lasting five days. No clots were passed.

There had been cough for three months with occasional flecks of blood in the sputum in the past few weeks. Previously he had smoked up to 100 cigarettes a day, but recently only 5 to 10. There had been no breathlessness on exertion.

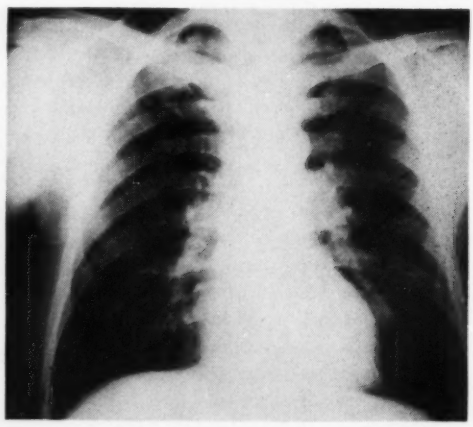
Patient had had a duodenal ulcer in 1945 but had had no abdominal pain in the past four years. Bowels were regular and there had been no diarrhoea.

For the past six days before admission patient had also complained of severe and persistent headaches, worse on moving the

Continued on page 124



Chest X-ray Films



LINK

● The two cases presented here will be the basis for the Clinico-Pathological Conference to be held on Wednesday, April 20th at 3:00 p.m., at the Delaware Academy of Medicine. The Conference by Trans-Atlantic Link will be given by the Medical Society of Delaware and the Royal Society of Medicine, courtesy of Smith, Kline and French Laboratories.

MEDICAL SOCIETY OF DELAWARE

Initial Out-Patient Department Visit (August, 1947)

The patient, a 57 year old white man, was first seen in the Out-Patient Department because of 2-3 episodes of hemoptysis during the preceding month. He had noted exertional dizziness for about 2 years, and chronic recurrent substernal pain, unrelated to exercise and without arm or neck radiation.

The past medical history revealed two episodes of hematemesis and melena. During the first bleeding episode which occurred in 1940, a duodenal ulcer was visualized on an upper G.I. series. A posterior gastro-jejunostomy was performed. The second episode of bleeding was treated medically. Chronic, heavy alcohol ingestion was admitted.

A physical examination in the clinic showed a blood pressure of 140/80 and the examination was otherwise entirely normal except for acne rosacea and the healed abdominal scar. A chest x-ray was normal. Blood studies done at this time and subsequent laboratory data are recorded on the appended table.

On a reducing diet and phenobarbital taken throughout the next year, the patient remained essentially asymptomatic.

First Hospital Admission (August-Sept., 1948)

One year after his visit to clinic, the patient was admitted to the hospital because of melena of 4 days duration. His admis-

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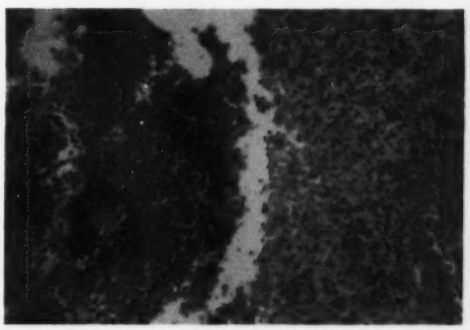


Figure 1

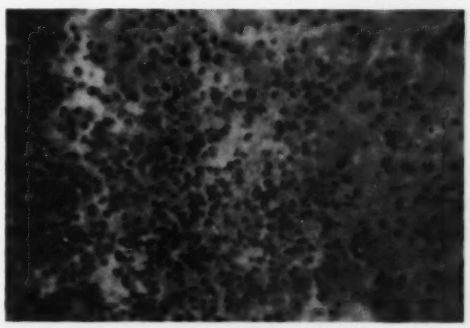
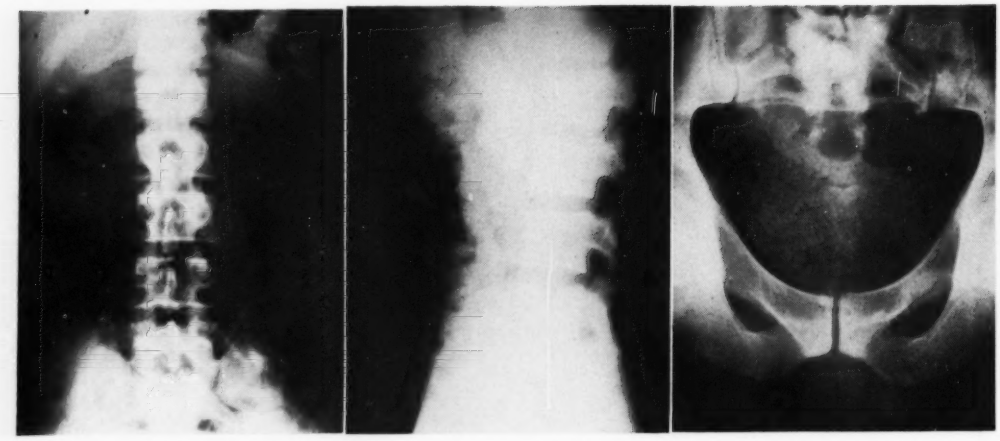


Figure 2



Film Sequences of Abdomen

head. He had also had bilateral earache for the past few days though never previously. There was no aural discharge, no photophobia and no diplopia. There were episodes of dizziness but not true vertigo. There was no paralysis and po paraesthesiae.

At examination he was found to be a hot ill-looking man with a temperature of 101°. Complexion was pale and muddy. There was no anaemia, jaundice, cyanosis or oedema. Pulse was 100, blood pressure 130/60. Jugular venous pressure not raised. Both ears showed mild redness of external auditory meatus but both drums were normal in appearance. The throat was red and there were several carious teeth. No abnormal signs were found in heart or lungs. Liver was not enlarged or tender, spleen was not felt. There was slight tenderness in the right iliac fossa and very marked tenderness in the right loin. Prostate felt normal without tenderness. Testes and epididymes showed no abnormality.

Nothing abnormal was found in the central nervous system at this stage.

Urine showed daily output of 2,500 ml., a trace of albumen and occasional red cells and pus cells. No casts were seen. Urine was mildly alkaline.

Blood tests showed Hb 15 gms. MCHC 31%, total white count 7000/cu.mm. with 76% neutrophils and 16% lymphocytes. Blood urea 34 mg.

Urine culture gave no growth in 48 hours.

X-ray of chest showed nothing above and behind R clavicle and at apex of left lung. There was some fine stippling scattered through middle and upper zones. X-ray of abdomen showed some calcification overlying upper pole of right kidney possibly due to old tubercle.

Excretion pyelogram showed good excretion on both sides. Left kidney appears normal. In right kidney the previously reported calcifications are seen to be associated with upper pole calyces and are probably old tubercle.

Course in Hospital

Fever persisted for first two weeks irregularly between 100° and 102°F. Initial treatment was with sulphadimidine and potassium citrate. Pethidine was needed for the pain. Treatment changed after four days to penicillin and tetracycline. By 18 September, 7 days after admission, patient was becoming distant mentally and drowsy in the evening. There was slight suggestion of neck stiffness. By the following day there was worse headache, irritability, photophobia, increased drowsiness and he was only rational at intervals, grinning vacuously at times. No definite neck retraction.

Continued on page 126

sion physical examination was normal except for acne and the abdominal scar which was previously noted. The liver and spleen were not palpable and no mention was made of any remarkable lymphadenopathy. During this admission, an upper G.I. survey was interpreted as showing no evidence of esophageal varices, gastric malignancy or ulcer. There was marked hypertrophy of the gastric rugae, duodenal and jejunal mucosal folds. No ulcer of the jejunal stoma was visualized. A barium enema was normal. A chest x-ray revealed a small amount of cardiac enlargement in its transverse diameter with some hilar congestion, but there was no evidence of enlarged hilar lymph-nodes or any parenchymal infiltration.

Treatment included blood transfusions and a Sippy regimen. Laboratory data are summarized on the appended chart. A bone marrow aspirate was interpreted as being compatible with a leukemoid hyperplasia.

Gastroscopic examination one month after discharge demonstrated only a normal appearing gastro-jejunostomy without evidence of ulcer or any other pathology.

Second Hospital Admission (March-May, 1949)

The patient remained well until 6 months later when, after several highballs and a heavy meal, he developed epigastric pain and vomiting. Shortly thereafter, he began to pass tarry stools. He continued to note melena for several days before admission. At the time of admission, he had a tachycardia of 130, a respiratory rate of 20 and was sweating profusely. Blood pressure was 120/80. Initial therapy included blood transfusions and a Sippy #1 regimen. An electrocardiogram demonstrated inverted T waves in leads 1 and 2 and in the left precordial leads, the interpretation being left heart strain. Three weeks after admission a subtotal gastrectomy with revision of the previous gastro-enterostomy was performed. The resected specimen showed gastritis and hyperplastic epithelium. Hematologic data during this admission are appended.

Third Hospital Admission (October, 1949)

Following discharge in May, 1949, he remained well until October when he developed a tender, hot nodule in his left axilla. Physical examination at this time demonstrated, in addition, many inguinal nodes and one right axillary node. The splenic tip was palpated for the first time. When excision biopsy of the left axillary node was performed, continuous oozing over the next several hours necessitated blood transfusion. During this admission, a soft systolic mitral murmur was mentioned for the first time. The microscopic examination of the resected lymph node revealed multiple small abscesses. The pathologic diagnosis was "'suppurative lymphadenitis." See Figures 1 and 2.

One month later, an eroded, inflamed, hemorrhagic ulcer developed on the patient's posterior pharyngeal wall. Therapy was parenteral penicillin and after one week this ulcer disappeared. A bone marrow biopsy of the sternum was performed at this time and was interpreted as "megakaryocytic hyperplasia and fibrosis compatible with chronic granulocytic leukemia."

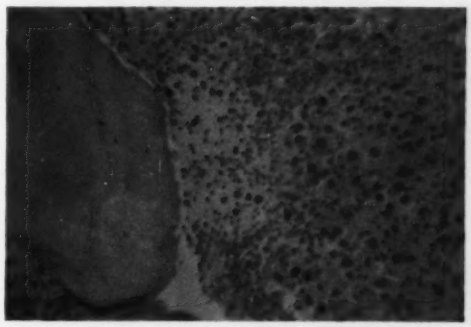
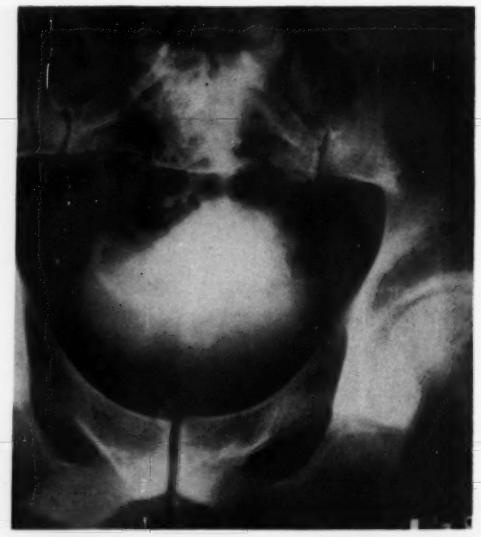


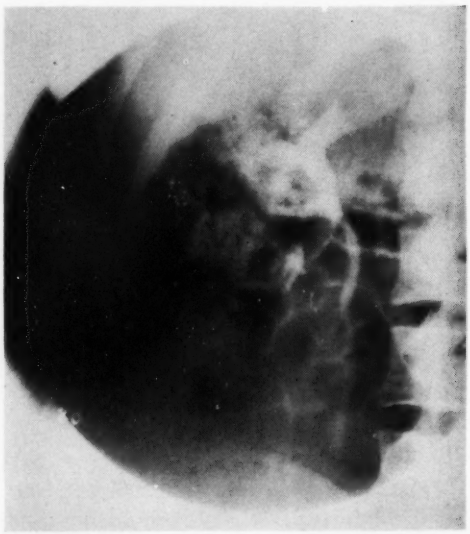
Figure 3

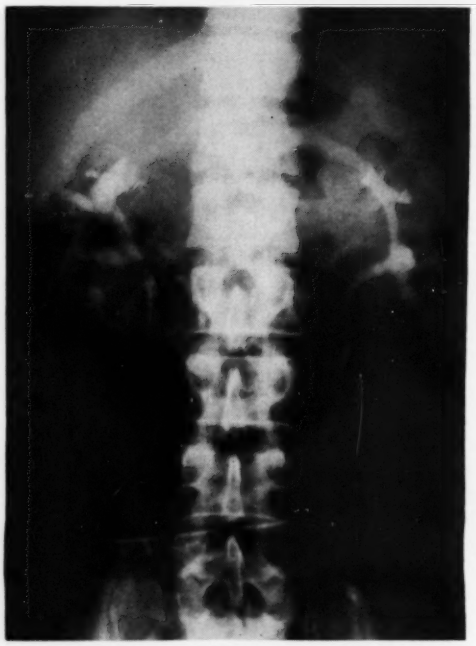
During the following 6 months, the axillary lymphadenopathy regressed. However, hepatomegaly became apparent as well as marked splenomegaly, and the lower pole of the spleen now reached to the pelvic brim. The chest x-ray was normal except for slight elevation of the left disphragmatic dome. See Figure 3.

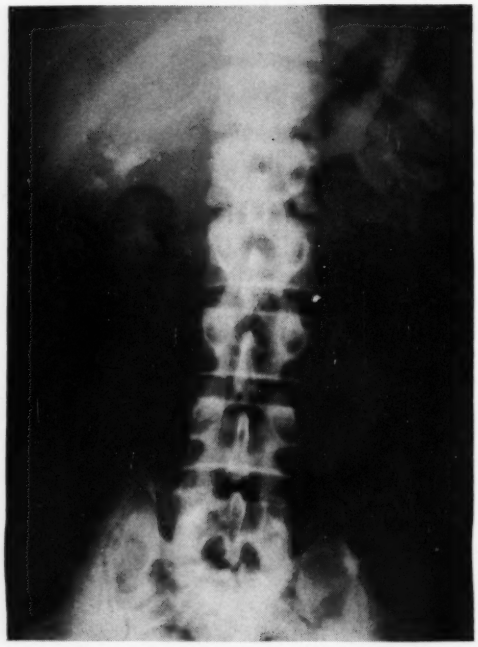
Continued on page 127

FILM SEQUENCES FOR EXCRETION PYELOGRAM









Reflexes all reduced. Plantars flexor, Kernig's sign negative. Fundi — no papilloedema and no choroidal tubercles.

Lumbar puncture — fluid slightly turbid and yellow. Pressure 150 mm. rising only slowly with jugular compression. 150 cells per cu. mm. with 96% lymphocytes. Chloride 90mEq. glucose 50mg. Protein 1.79gm. Pandy plus 4, Lange 000 000 000. Culture no growth after 48 hours. Later CSF showed glucose 78 and 54 mg. The level of consciousness varied considerably during the next five days.

Continued on page 128

APPENDED CHART — CASE PRESENTED BY MEDICAL SOCIETY OF DELAWARE

	1st Admission					2nd Admission		3rd Admis.		Final Admission	
	8/47	8/15/48	8/17/48	8/19/48	9/5/48	3/29/49	5/7/49	10/49	7/50	1/15/51	2/2/51
HBG	13.7	6.2	8.8	9.6	11.1	9.3	11.2	14.2	8.1	7.8	12.4
WBC	51,500	31,900	23,200	16,600	19,300	31,200	14,900	7400	24,800	3400	3700
Poly. seg	66	69	60	73	79	80	82		9	36	4
Poly. non seg	3	3	9	9	1	3	—	N	3	14	24
myelocytes	—	4	7	4	—	2	—	O	—	2	40
metamyelo	—	—	1	—	—	—	—	D	—	8	—
blasts	—	—	—	—	—	occ.	—	I F F	53	20	16
lymphocytes	27	12	23	1	13	7	14		16	12	—
monocytes	3	2	—	2	1	3	—		1	—	4
eosinophils	1	10	—	11	2	0	—		2	—	4
basophils	—	—	—	—	4	5	4		16	8	8
Platelets		945,000		872,000	506,000	increased				125,000	30,000
RETICS			1.9							3.4	
COOMBS										negative	
VEN.COAG.TIME		5 min.									
BSP		0%									
URIC ACID		2.9									
BUN		6									
BLOOD SUGAR						21	15			11	
TOT. PROT.		6.10				6.23				119	
ALB.		4.40				3.63				6.30	
GLOB.		1.70				2.60				2.95	
CEPH. FLOC.		0								3.35	

C-P CASE — Medical Society of Delaware

Continued from page 127

In the fall of 1950, a course of x-ray therapy to the spleen was begun because of overlying pain and tenderness. After 1200 r in air in a period of 12 days, therapy was discontinued because of a decrease of WBC from over 20,000 to 5,000. However, great symptomatic relief was obtained and the size of the spleen decreased one-half. Over the next 3-4 months, occasional blood transfusions were administered for symptoms of anemia. Overall weight loss of 40 pounds had occurred since the patient's first visit in 1947.

Final Hospital Admission (Jan.-Feb., 1951)

The patient was readmitted in January of 1951 because of progressive weakness and increasing dizziness. Physical examination on admission revealed pallor of all mucous membranes; fever of 102°F.; pulse rate 80; moist rales at both bases; a soft systolic murmur at both mitral and aortic areas; the spleen filled the entire left abdomen; the liver edge extended 3 fingerbreadths below the right costal margin and was tender. The chest x-ray was essentially normal. The patient's fever increased to 103°F. the second hospital day. From this day, he received a daily 8 hour infusion of 10 mg of ACTH and 1000 cc of 5% glucose in water. The daily infusion of ACTH was continued for two weeks. During this time, his temperature decreased until he became afebrile. The day before the ACTH was discontinued, his fever recurred and from then on until his death 3 days later, he manifested intermittent fever to a high of 103°F. A blood culture obtained the day after admission demonstrated no growth in 15 days. Despite supportive therapy, including transfusions of red cells and whole blood and penicillin, he became progressively weaker and expired approximately 3 weeks after his admission.

C-P CASE — Royal Society of Medicine

Continued from page 126

He became incontinent. Neck stiffness became more marked. Kernig's sign positive but no localising neurological signs. Fundi remained normal. On 23rd September a lumbar puncture failed and a block was suspected.

25th September, burr holes were made for a ventricular tap. Dura was found to be not under tension and brain substance was shrunk away from dura. Ventricle fluid was not under pressure; it was clear. Ventricles seemed enlarged.

Following operation temperature fell, but consciousness continued to fluctuate.

26th September; developed gross nystagmus in all directions and diplopia. Reflexes becoming less brisk. Gradually became stuperose. Right pupil now larger than left. Fundi still clear. Plantar reflexes still flexor.

On 2nd October, breathing became rapid, gasping and irregular. Widespread crepitations developed in both lower zones. Temperature became subnormal. Urine showed no change — still a few red cells and pus cells.

On 3rd October, breathing very rapid and irregular. Patient unable to swallow, and died.

ANNUAL MEETING, Medical Society of Delaware
Rehoboth, Delaware September 8, 9, 10, 1960

Editorials

TRANS-ATLANTIC C P C

It is our privilege to be the first state society to participate in a trans-Atlantic clinico-pathological conference. Elsewhere in this issue of the *Journal* are the protocols of the British and American cases. The British case will be discussed by a panel consisting of Drs. Barrett Heckler, moderator, Dewey A. Nelson, Leonard Lang, and Lemuel McGee. The Delaware case will be discussed by a panel at the Royal Society of Medicine. The entire program will be heard by means of trans-Atlantic telephone. The program is sponsored by Smith, Kline, and French.

This is one meeting that will begin promptly—3:00 p.m. on Wednesday, April 20th. By the same token, it will end at 4:00 p.m. No one should miss another "first" in Delaware.

THE FIRST TUESDAY AFTER THE FIRST MONDAY

Election year hysteria is a disease that manifests itself by numerous symptoms. Its etiology is the ceaseless struggle between the aspirant and the incumbent. Its symptoms are varied and bizarre. Examination reveals a lesion, deep seated and malignant, resulting from a selfish drive to occupy the limelight, regardless of the means. The prognosis is guarded—this chronic disease is subject to exacerbations and remissions, usually recurring in four year cycles.

One of the current epidemics is an attack upon our colleagues in the pharmaceutical industry. Some of the charges aimed at this industry undoubtedly are based upon fact; some drug companies no doubt have standards lower than those of others. Most epidemics can be far reaching and devastating and, unfortunately, the good must suffer with the bad.

In this particular epidemic progress reports are eagerly awaited by the press who, in turn, relay the news to an excited public. At times statements are made behind the scenes that never reach the press. On January 22, 1960, before the Senate of the United States, Senator E. M. Dirksen of Illinois felt duty bound to his conscience to straighten out the record and make an objection to the manner in which the investigation of the drug industry was being carried out plus the "fantastic and incredible" news headlines and stories resulting from these hearings.

It is unfortunate that Senator Dirksen's remarks were not noted by the press.

Unfortunately, one rotten apple can spoil the entire barrel but things are not so bad as they have been made to appear. The majority of the members of the drug industry are constantly striving to do a good job in helping us to do our best for our patients. If the defects claimed by certain lawmakers do exist in the industry, there are more rapid and effective means of obtaining a cure—but means not nearly so helpful to the accusers in this election year of 1960.

Studies have been conducted into the waste, duplication, and general inefficiency of the medical services within the Federal Government. The Hoover Commission has made specific recommendations whereby these abuses could be minimized.

The sincere desire of a lawmaker to protect the public against unscrupulous profiteers is indeed commendable. It would make more sense to most of us, however, if someone would investigate the spending of our tax dollars tell us why the recommendations of the Hoover Commission have been ignored.

In Brief

Cystic Fibrosis Research

The University of Delaware's Research Foundation has been investigating the structure of mucous materials through its chemistry department, and recently has expanded this study to include the nature and consistency of human respiratory mucous secretions. Largely supported by the National Cystic Fibrosis Research Foundation, this work may be a significant step forward in understanding this disease which has the third highest mortality rate in children (after accidents and leukemia) and is recognized as being congenital in origin and related to the malfunction of the exocrine glands, according to Dr. Harold Kwarts, associate professor of Chemistry at the University.

Government Interest Alerts Health Insurers

Rapid strides are being made by health insurance companies to provide medical, surgical and hospital care coverage for people aged 65 and over. Robert R. Neal, General Manager of the Health Insurance Association of America, speaking in Washington, stressed that many health insurance companies are gearing their efforts to meet the need for better coverage at a cost which the public can pay. The establishment of federal administrative machinery to operate health insurance programs could be the forerunner of government intervention in fields of insurance, said Mr. Neal. The creation of the Senate Labor Committee's Sub-Committee on Problems Aging and the Aged, and the public hearings held this year by that group; the introduction of the Forand Bill, and congressional authorization of the White House Conference on Aging are all matters of concern to the insurance business, he added.

Less of the Dollar

Physicians received 22.6% less of the medical care dollar spent by the average American family in 1958 than in 1938, a drop from 31 to 24 cents in 20 years. A breakdown issued by the Health Information Service showed a sharp increase of 42% (in the amount) spent for all medical care in the past five years. The analysis for 1957-58 showed that physicians' services made up 26% of health costs; hospitals, 31%; drugs, medications and appliances, 27%; dental services, 10% and miscellaneous (special nursing, medical aids etc.), 6%.

What Does It Prove?

Twice as much money is being spent for recreation, alcoholic beverages and tobacco by the American public as for medical care. As reported by the Health Insurance Institute, one dollar out of the estimated 18 dollars the public spends for its personal needs goes for medical care and two dollars out of the eighteen goes for the aforementional pleasures. Perhaps this is a happy balance and indicates that we are a healthy nation on the whole.

Top Officers Re-elected

At a quarterly meeting of the Memorial Hospital's Board of Directors, Edward S. Parvis, M.D., and J. William Abbiss, M.D., were re-elected president and vice--president respectively of the executive committee, and Martin B. Pennington, M.D., was elected secretary-treasurer.

The Dope on Dope

Delaware must claim only 17 of the nation's registered drug addicts as residents. This was reported by H. J. Anslinger, United States Commissioner of Narcotics, in his testimony before the House Appropriations Committee. Only one new dope addict was registered in the state during 1959, as compared to 13 in 1958; three narcotic violations out of the nation's 1,649 were reported in Delaware during 1959, none being violations of the Federal Marijuana Statutes.

Attention, Medical Women

An interesting program is being planned for the Pan American Medical Women's Alliance at its Seventh Congress which will be held in San Juan, Puerto Rico, June 3-8, 1960 at the Condado Hotel. Applicants for membership in this Alliance should be made to Dr. Eva Cutright, Treasurer, 458 Beall Avenue, Wooster, Ohio.

Don't Look Now!

A prediction that cancer will be almost completely controlled within our lifetime through research in the biochemistry of the disease was made by John F. W. King, M.D., previously medical director of the Delaware Division of the American Cancer Society and now service director of the medical and scientfiic department of the National Society. For the cigarette smoker, Dr. King cited the fact that most chemical treatment of lung cancer is of limited effectiveness, that the control rests in its *prevention* — which many people are ignoring by looking the other way.

The Top Four

Figures released by the Public Health Service's National Office of Vital Statistics show heart disease, cancer, strokes and accidents accounting for 71% of all deaths in 1958. The number and rates per 100,000 population for the four leading causes of death are:

	Number	*Rate*
Heart disease	637,246	367.9
Malignant neoplasms, or cancer	254,426	146.9
Vascular lesions (chiefly strokes)	190,758	110.1
Accidents, all forms	90,604	52.3

Chiefly as a result of the influenza epidemic, the toll of deaths from influenza and pneumonia remained high in 1958 — 57,439 deaths, or 33.2 per 100,000 population.

New Director

Dr. Marie Lehner, obstetrician-gynecologist, will replace Dr. Jack Sabloff as Director of Maternal, Child Health and Crippled Children's Services for the State Board of Health. Dr. Lehner, graduate of Woman's Medical College of Pennsylvania, is from San Francisco.

An Exacting Art

Plastic surgery to correct the effects of cancer is increasing to include almost half of all plastic operations performed at Johns Hopkins Hospital, Baltimore. About one quarter of the operations are to repair deformed or injured hands; only 20% are classified as cosmetic surgery. Dr. Milton Edgerton, Johns Hopkins surgeon, feels that plastic surgery is still widely misunderstood, not only by the public but within the medical profession. "No one doubts the value of plastic surgery for an obvious deformity, but many fail to understand the importance of correcting a minor deformity," he added. "The purpose is not and should not be self indulgence, rather than elmination of self concern."

OUTSTANDING ACHIEVEMENTS IN MEDICINE DURING 1959

The deans of 84 medical schools, polled by the American Medical Association on the greatest medical advancements during the past year, nearly all agreed that intensive medical investigation in biochemical genetics has shed a new light on the nature of life and the future of man as a species. Dr. William S. Stone, Dean of the University of Maryland Medical School, said, "the biggest single achievement in the field of medicine is the increase in our knowledge of the chemistry of genetics."

Dr. Severo Ochoa of the New York College of Medicine and Dr. Arthur Kornberg of Stanford University—Nobel Prize winners in medicine for 1959—have opened avenues in the treatment of a wide spectrum of disease with their discoveries related to the biological synthesis of compounds RNA and DNA.

DNA is acknowledged to be the chemical that, in most living things, passes hereditary characteristics from one generation to the next.

RNA thought to pass on hereditary traits, is a key substance in the production of protein and is found in some viruses including those which cause poliomyelitis.

These chemicals, under study for years, will have more far-reaching affect on future biological concepts than any other single advance this past year, say the deans.

Specific medical investigations mentioned by the deans which are now being carried on in the field of biochemical genetics include:

. . . the phenomenon, transduction, through which a virus can carry genetic material from one cell to another of significance in transplantation of organs.

. . . the role, if any, of viruses in leukemia.

. . . the function of enzymes in diseases. Epilepsy and multiple sclerosis are thought to be of enzymatic and metobolic origin.

. . . study of certain diseases in which, because of hereditary abnormality, the patient fails to manufacture enzymes, or manufactures an abnormal enzyme.

. . . the possibility of moving heritable trait vehicles from one cell to another.

. . . the role of genetic analysis in the understanding of cancer.

. . . the role of genetic influences of such diseases as hypertension, coronary ailments, schizophrenia and diabetes.

. . . the possibility of making synthetic substances with enzymatic activity and using these artificial enzymes to control diseases resulting from abnormal or deficient enzymes.

Dean Stafford L. Warren of the University of California Medical Center, noted the better understanding of the biochemical inhibition of nerve impulses which was achieved in 1959 and added that it is now possible to trace the learning process on an EEG. This may eventually lead to a better understanding of mental disease and bring about better methods of treatment.

In the opinion of Dr. H. Hunter, Dean of the University of Virginia School of Medicine, research in chromosomes has been the outstanding achievement in medicine in 1959. He referred particularly to the findings of British investigators that irregular numbers of chromosomes in living cells are responsible for such conditions as mongoloid idiocy, abnormalities of the sexual organs, and, possibly, leukemia.

Dr. Doane of Ohio State and Dr. Ralph E. Snyder of New York Medical College, believe that the development of synthetic penicillin was a great '59 achievement and will "open up a whole new era of possibilities in the attack on resistant organisms."

Contributors Column

Arthur Ullman, M.D. graduated from State University of New York College of Medicine after receiving a masters degree in History and Zoology from Duke University. After urology residencies in three New York City hospitals, Dr. Ullman worked under Dr. Frank Hamm doing research on ureteral regeneration, bladder replacement, carcinogenic agents affecting bladder mucosa and post cystoscopy bacteremia.

Howard J. Shear received an M.A. and Ph.D. in psychology at the University of Texas in 1953 and 1955 respectively. From 1953-55, he worked as a counseling psychologist at the University counseling center as a Hogg Foundation Mental Hygiene Fellow. Dr. Shear interned in clinical psychology at the Coatesville VAH and has been a staff member at the Wilmington Veterans Administration Hospital since 1956. He is a member of the American Psychological Association and the American Academy of Psychotherapists.

Domenic A. Rovito, M.D., graduate of Royal University of Rome, Italy '34, served a rotating internship at St. Joseph's Hospital, Lancaster, Pa., and was Senior Psychiatrist at Danville State Hospital, Pa. from 1936-42. For the next 8 years he was in private practice in Philadelphia before accepting a post as full-time psychiatrist at the Veterans Administration Hospital, Wilmington. Dr. Rovito has been Chief of Neuropsychiatry since 1956 and was certified by the American Board of Psychiatry in 1956.

Donald G. McHale, graduate of Jefferson Medical College, '35, joined the Veterans Administration Hospital in Wilmington in 1948 and has been associated with the Department of Surgery to date. Dr. McHale served for 7 years in the surgical service during World War II.

Walker Stamps, M.D., a North Carolinian, Harvard Medical School, '37, interned at Bellevue Hospital, New York City and then served in the African and European theaters from 1940-1945 as Lt. Colonel. Previous to joining the Veterans Administration Hospital in 1957, he was in private practice in Jacksonville, Florida.

Marvin L. Bobb, M.D., Hahnemann '51 and Oxford University, has recently begun practicing internal medicine in Wilmington. He had done basic research in biochemistry in the laboratories of two Nobel Laureates following the completion of his residency in internal medicine at the Montefiore Hospital in New York. Dr. Bobb is a native of Claymont, Delaware.

Martin M. Mandel, M.D., Jefferson Medical College '47, served his internship at the Jefferson Hospital in Philadelphia and a residency in neurology at Jefferson Medical College, where he received a hospital appointment as Assistant in Neurology in 1949. Dr. Mandel was certified by the American Board of Neurology in 1959.

NEW SOCIETY IN DELAWARE

The Delaware Society of Internal Medicine was founded at the Delaware Academy of Medicine February 16. This organization consists of physicians who practice Internal Medicine and will be a component organization of the American Society of Internal Medicine

The purpose of this organization is to study the scientific economic, social, and public aspects of the practice of internal medicine supplementing the aims and activities of the American College of Physicians

The officers for 1960 were elected and are as follows:

Herbert M. Baganz, M.D. — President
Lemuel C. McGee, M.D. — Counselor
John J. Egan, M.D. — President-Elect
A. Henry Clagett, Jr., M.D. — Counselor
Bernadine Paulshock, M.D. — Secretary-Treasurer

Auxiliary Affairs

WHY A MEDICAL AUXILIARY?

The best way to answer this question is to tell you some of the projects and a few of the historical facts of the Auxiliary to the Medical Society of the State of Delaware.

In 1929 and 1930, members of the Medical Society of Delaware suggested to several of the doctors' wives that an auxiliary to the Medical Society be started in Delaware. Mrs. Harold Springer was the chairman of the group until the organization was accomplished, and Mrs. Robert W. Tomlinson was elected first president.

Previously, in 1922, the idea of a National Auxiliary to the American Medical Association had originated with the Woman's Auxiliary to the State Medical Association of Texas. That year, the following resolution was introduced and adopted by the House of Delegates of the AMA:

"To organize a Woman's Auxiliary to the American Medical Association, the object of which shall be, 'to extend the aims of the medical profession through the wives of doctors to the various women's organizations which look to the advancement in health and education, to assist in entertainment at all medical conventions and to promote acquaintance among doctors' families so that closer fellowship may exist.'"

Naturally, the basic policies of the National Auxiliary have always been the policies of our Delaware State Auxiliary, and just as the National Auxiliary secures the approval of its Advisory Council before projects have been incorporated in the Auxiliary program, so our State Auxiliary looks to its Advisory Board for approval of any new project.

VNA Project

One of the projects originating in the beginning years of our Delaware Auxiliary, and still one of our current activities, is the furnishing of Visiting Nurse Association supplies of babies layettes, nurses' aprons, and other articles requested by the VNA. The purchase of the materials and the making of hundreds and hundreds of these articles through the years has been a much appreciated contribution to the Visiting Nurse Association.

AMEF Project

Our top priority project at the present time, in line with the priority project of the National Auxiliary, is the American Medical Education Fund. Our chairman and her committee are busily engaged in many plans for raising funds for the AMEF.

Last year the Woman's Auxiliary to the American Medical Association contributed

$140,500 to the AMEF. This represented the funds raised by each of the State Auxiliaries and was 11 per cent of the total amount given to the Medical Schools by AMEF.

Paramedical Careers

The nursing scholarship program has been broadened to include more health careers, and it is now called the Paramedical Careers Committee. This year, in addition to scholarships in nursing, our auxiliary has included scholarships in laboratory technology.

Since the program in nursing scholarships originated in 1950, our Delaware Auxiliary has awarded 30 scholarships in nursing and raised the sum of $6,500 to carry on this project.

The committee has also screened applicants for the Rotary Club scholarships and awarded 553 Grants in Aid and also three nursing students are being financed by the Zeta Chapter of Beta Sigma Phi Sorority.

The Problem of the Aged in Delaware

The Committee on Legislation has been preparing a report on the survey, "What is Being Done for the Aged in Delaware." The request for this report came from the National Auxiliary and is being prepared by each of the State Auxiliaries.

The objectives of this Legislative Committee are:

To assist the medical profession in the promotion of legislation that will advance the type of medical care beneficial to the health of the people.

To assist the medical profession to oppose legislation with medical implications detrimental to the health of the people.

To inform Auxiliary members on legislative matters.

To acquaint the public with the views of the medical profession on legislation with medical implications.

Dr. Louis Orr stated last year, "*To me, one of the greatest functions that the Woman's Auxiliary can perform is to act as an educational force for medicine.*"

He urged the Auxiliary to assume the task of launching an educational program and tell the full story about the so-called free hospital and medical care for the retired beneficiaries of the Social Security Act.

Two-fold Program

This task has two points: first, details of the dangers that legislation of this type can bring; and second, an up-to-the-minute report on what the free enterprise system is doing to improve the health care of the aged.

This two-fold program can be spread throughout every United States community by women of the Auxiliary. The problem of the aging is clearly the problem of the physician today, and as such is also the problem of every Medical Auxiliary member.

Mental Health Activities

The Committee on Mental Health has a program of work in the mental hospitals of the State which is carried out each week. Gifts to the library and other areas and donations of time to the various departments are made by many members of our Medical Auxiliary.

These activities, plus any timely requirement of the Community Service Committee, the Civil Defense Committee or the Safety Committee, make up most of the work of the Auxiliary.

The National Auxiliary with a total of over 78,000 members at present has had national recognition many times in the past years with representation at important national meetings on health problems and ideas, and the Auxiliary aims to take as active and conscientious a part in the future as it has in the past.

Mrs. Sylvester W. Rennie
Chairman of Legislative Committee

MAJOR MEDICAL MEETINGS IN DELAWARE

Standing Schedule

Beebe Hospital	General Staff	2nd Friday	Monthly
Delaware Hospital	General Staff	2nd Tuesday	Feb., May, Sept., Dec.
Kent General Hospital	General Staff	3rd Tuesday	Monthly
Memorial Hospital (Wilmington)	General Staff	2nd Tuesday	Jan., March, June, Oct.
Milford Memorial Hospital	General Staff	2nd and last Tuesdays	Monthly
Nanticoke Memorial Hospital	General Staff	1st Thursday	Monthly
St. Francis Hospital	General Staff	4th Tuesday 1st Tuesday	March, May, Oct. December
Wilmington General Hospital	General Staff	4th Tuesday	Jan., April, Sept., Nov.

Kent County Medical Society	Monthly Meeting	3rd Tuesday	September - June
New Castle County Medical Society	Monthly Meeting	3rd Tuesday	September - June
Sussex County Medical Society	Monthly Meeting	2nd Thursday	September - June

Delaware Academy of General Practice	Monthly Meeting	1st Tuesday	September - June
Delaware Pathology Society	Weekly Meeting	Each Friday	

Special Schedule

American Academy of General Practice	Annual Meeting	Philadelphia, Pa.	March 19-24, 1960
Medical Society of Delaware The Royal Society of Medicine	Trans-Atlantic Clinico-Pathological Conference	Delaware Academy of Medicine	April 20, 1960
Delaware Academy of General Practice	Diseases of the Chest	Emily P. Bissell Hospital	April 23, 1960
	Open House at the Virus Laboratory of Delaware — Tallman Bldg.		
Medical Society of Delaware	Annual Meeting	Rehoboth, Delaware	September 8, 9, 10, 1960
Delaware Academy of General Practice	Annual Meeting	Delaware Academy of Medicine	December 9, 10, 1960

TWO-WAY RADIO CONFERENCES FOR THE COMING MONTH

Sponsorship: *Medical Society of Delaware, Pennsylvania Hospital, Smith Kline & French Laboratories.*

Date *Topic and Faculty*

Mar. 29—"Differential Diagnosis and Treatment of Obstructive Jaundice." W. Paul Havens, M.D., Physician to Pennsylvania Hospital and Head, Dept. of Infectious Diseases.

Apr. 5—"Resuscitation of the Newborn." Thomas R. Boggs, Jr., M.D., Pediatrician to Pennsylvania Hospital and Head, Dept. of Pediatrics.

Apr. 12—"Diagnosis and Treatment of Pruritus Ani." F. Dana Law, M.D., Assistant Surgeon, Pennsylvania Hospital.

Apr. 19—"Immunization Routines in Children." Edward M. Sewell, M.D., Instructor in Pediatrics, Univ. of Penna. School of Medicine.

Apr. 26—"Cardiac Arrhythmias, Recognition and Treatment." Frank R. Boyer, M.D., Assistant Cardiologist, Pennsylvania Hospital.

The first specific aldosterone-blocking agent...

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effectively extends the medical control of edema or ascites.

It introduces a new therapeutic principle in the treatment of...

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THE NEPHROTIC SYNDROME • IDIOPATHIC EDEMA

ALDACTONE introduces a new class of therapeutic agent, the aldosterone-blocking agent providing:

satisfactory relief of resistant or advanced edema even when all other agents, alone or in combination, are ineffective or are only partially effective.

A New Order of Therapeutic Activity

ALDACTONE acts by blocking the effect of aldosterone, the principal mineralocorticoid governing the reabsorption of sodium and water in the distal segment of the renal tubules.

By so doing Aldactone establishes a fundamentally new and effective approach to the control of edema or ascites, including edema resistant or unresponsive to conventional diuretic agents.

Further, because of its different site and mode of action in the renal tubules, Aldactone has a true, highly valuable synergistic activity when used with a mercurial or thiazide diuretic.

What Physicians May Expect of Aldactone

It is fully expected that Aldactone will change present medical concepts of the therapeutic limitations of managing edema. Many patients living in a greater or lesser state of edematous invalidism can now be edema-free. To others, gravely ill, Aldactone will be life-saving.

When used alone, Aldactone will produce a satisfactory diuresis in about half of those patients whose edema is resistant to conventional diuretic agents.

When Aldactone is used in a comprehensive therapeutic regimen, which includes a mercurial or a thiazide diuretic, a satisfactory diuresis and relief of edema may be expected in approximately 85 per cent of edematous patients *who would not otherwise respond.*

DOSAGE: For most adult patients the optimal dosage of Aldactone, brand of spironolactone, is 100 mg. four times daily. Aldactone should be administered for at least four or five days before appraising the initial response, since the onset of therapeutic effect is gradual when it is used alone. Aldactone manifests accelerated activity with greater response as early as the first and second days when used in combination with a mercurial or thiazide diuretic.

SUPPLIED: Aldactone is supplied as compression-coated yellow tablets of 100 mg.

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Each of the babies pictured on this page was borne by a mother with a *documented* previous history of true habitual abortion, who was treated with DELALUTIN during the pregnancy leading to this birth

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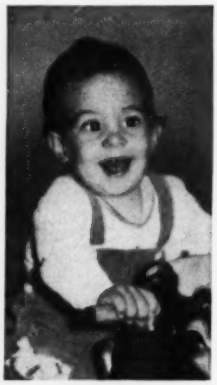

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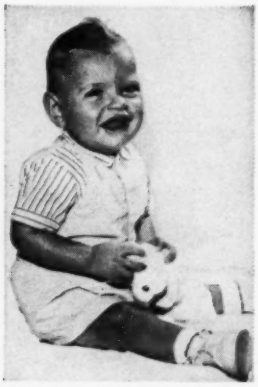

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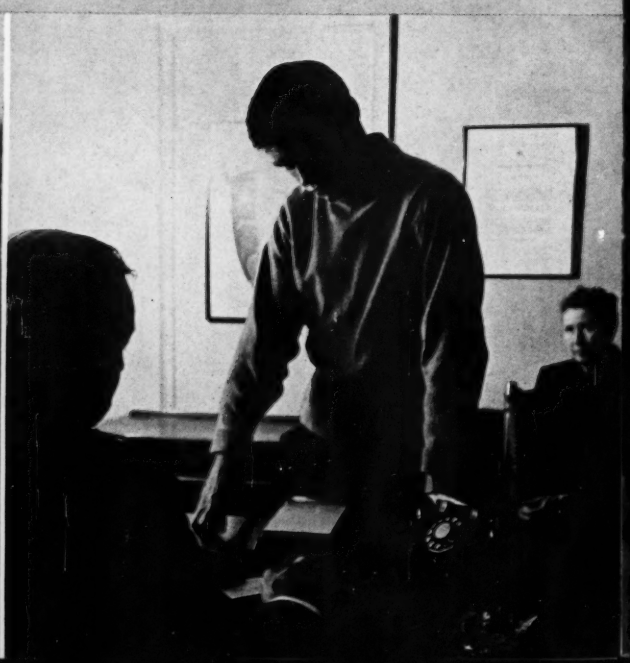

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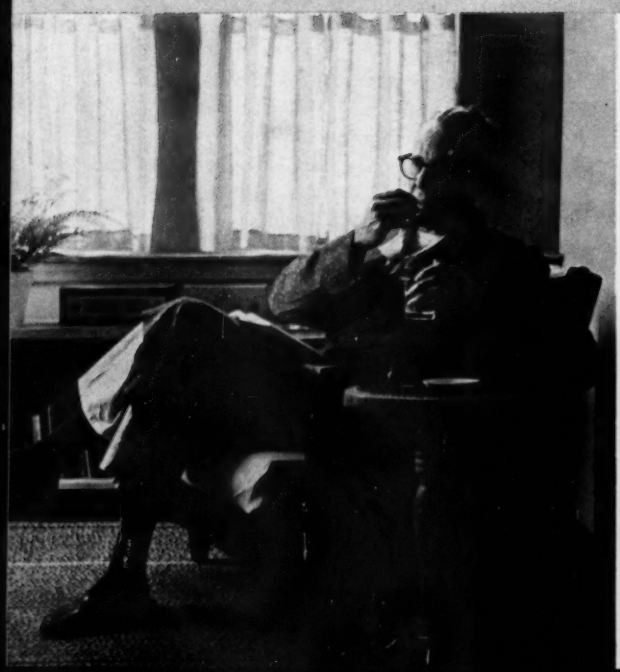
POTASSIUM PENICILLIN-152

ANTIBIOTIC ACTIVITY DIRECTLY PROPORTIONAL TO ORAL DOSE

REDUCED RATE OF INACTIVATION BY STAPH PENICILLINASE

MANY STAPH STRAINS MORE SENSITIVE TO SYNCILLIN IN VITRO

BRISTOL



FOR HIGHLY EFFECTIVE THERAPY OF THE LARGE VARIETY OF INFECTIONS CAUSED BY SUSCEPTIBLE PATHOGENS...NEW

SYNC

Significance of complementary action of isomers in SYNCILLIN

The antibiotic effect of the clinically available mixture, SYNCILLIN, is greater than that of either of its two component isomers alone against many important pathogens, including some penicillin-resistant staphylococci. This phenomenon has been described as *Isomeric Complementarity*.

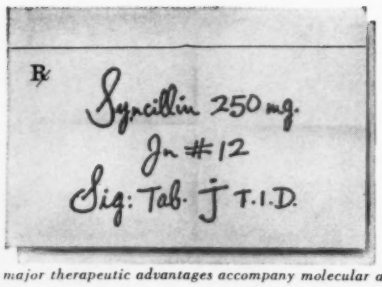
Significance of higher blood levels with SYNCILLIN

Higher blood levels may be of value with organisms of only moderate penicillin sensitivity where doubling the blood concentration may be essential for effective bactericidal action. In addition, these higher levels may be necessary where there is infection in areas with a poor blood supply.[6] Under these circumstances a higher blood concentration may provide the increased diffusion pressure required to deliver adequate amounts to the tissue. Also, antibiotic activity of SYNCILLIN is directly proportional to oral dosage. Increasing the dosage may, therefore, enhance the drug's effectiveness in certain cases.

Efficacy of SYNCILLIN against staphylococci and other resistant organisms

Studies have shown that SYNCILLIN is effective *in vitro* against 60 to 75% of hospital "staph" strains, while penicillin G and penicillin V are now effective against only 30 to 50%.[1, 2] Therefore, if clinical judgment indicates the use of penicillin, SYNCILLIN would be expected to be the most effective. However, since some strains are still resistant to SYNCILLIN as well as to the other penicillins, cultures and sensitivity tests should be performed where indicated by clinical judgment.

There have recently been reports of decreased efficacy of penicillin in streptococcal[3] and gonococcal[4, 5] infections. The emergence of penicillin-resistant gonococci appears to be associated with an increase in the incidence of gonorrhea all over the world. When a less sensitive strain is encountered the higher blood levels produced by SYNCILLIN may be most helpful.



major therapeutic advantages accompany molecular asymmetry

I L L I N™

Relation of intermittent high blood levels of SYNCILLIN to antibacterial efficacy

SYNCILLIN, like all clinically available penicillins, is bactericidal. Periodic high blood concentrations are sufficient to permit complete eradication of sensitive pathogens. Continuous high blood levels are not required with **SYNCILLIN**. According to Eagle,[7] "Soon after penicillin attains effective concentrations, the bacteria cease multiplying; and the bacteriostatic effect persists for a number of hours after penicillin has fallen to concentrations that are wholly ineffective....The therapeutic significance of this postpenicillin recovery period is enhanced by the fact that the recovering bacteria, damaged but not killed by the previous exposure to penicillin, are abnormally susceptible to the host defenses. In consequence, the bactericidal process *in vivo* continues for many hours after the drug itself has fallen to ineffective concentrations."

Reduced rate of inactivation of SYNCILLIN by staph penicillinase

Bacterial resistance to penicillin has been attributed to the action of penicillin-inactivating enzymes produced by the invading organisms. **SYNCILLIN** is less affected by staphylococcal penicillinase than either of its component isomers. Further, **SYNCILLIN** is shown to be less inactivated by this enzyme than penicillin V and penicillin G. Penicillinase from *B. cereus* likewise inactivates **SYNCILLIN** less rapidly than penicillin V and G. But this would not impede the therapeutic use of this penicillinase in allergic reactions. This is because the massive dosage with which this enzyme is administered would effectively destroy **SYNCILLIN** in the body.

References: 1. Wright, W. W.: Microbiology Report to Bristol Laboratories Inc. 2. Kligman, A.; Morigi, E. M. E.; Wheatley, W. B., and Albright, H.: Paper presented at the Seventh Antibiotic Symposium, November 4-6, Washington, D.C. 3. Editorial: New England J. Med. **261**:305 (Aug. 6) 1959. 4. King, A.: Lancet **1**:651 (March 29) 1958. 5. Epstein, E.: J.A.M.A. **169**:1055 (March 7) 1959. 6. Kass, E. H.: Am. J. Med. **18**:764 (May) 1955. 7. Eagle, H.: J. Bact. **58**:475, 1949.

Indications: **SYNCILLIN** is recommended in the treatment of infections caused by pneumococci, streptococci, gonococci, corynebacteria, and penicillin-sensitive staphylococci. In addition, **SYNCILLIN** is effective against certain strains of staphylococci resistant to other penicillins. **SYNCILLIN**, like other oral penicillins, is not recommended at the present time in deep-seated or chronic infections, subacute bacterial endocarditis, meningitis, or syphilis.

Dosage: 125 mg. or 250 mg. three times daily, depending on the severity of infection. Larger doses (e.g., 500 mg. t.i.d.) may be used for more severe infections. **SYNCILLIN** may be administered without regard to meals. Beta hemolytic streptococcal infections should be treated with **SYNCILLIN** for at least ten days.

Precautions: At the present time it is not possible to draw definite conclusions regarding the incidence of allergenicity to **SYNCILLIN** or its cross-allergenicity with natural penicillins. *Therefore, the usual precautions for oral penicillin therapy should always be observed.* Patients with histories of asthma, hay fever, urticaria, or previous reactions to penicillin should be watched with special care. Administration of oral penicillin, in rare instances, may provoke acute anaphylaxis, particularly in penicillin-sensitive individuals.
Diarrhea has been reported occasionally following heavy dosage. If this occurs, lengthen the interval between dosages.
If superinfection occurs during therapy, appropriate measures should be taken. Since some strains of staphylococci are resistant to **SYNCILLIN** as well as to other penicillins, cultures and sensitivity tests should be performed where indicated by clinical judgment. As is true with all antibiotics, clinical response does not always correlate with laboratory bacterial sensitivity reports.

Supply: 125 and 250 mg. tablets, bottles of 25 and 100. 125 mg. powder for oral solution, 60 ml. vials.

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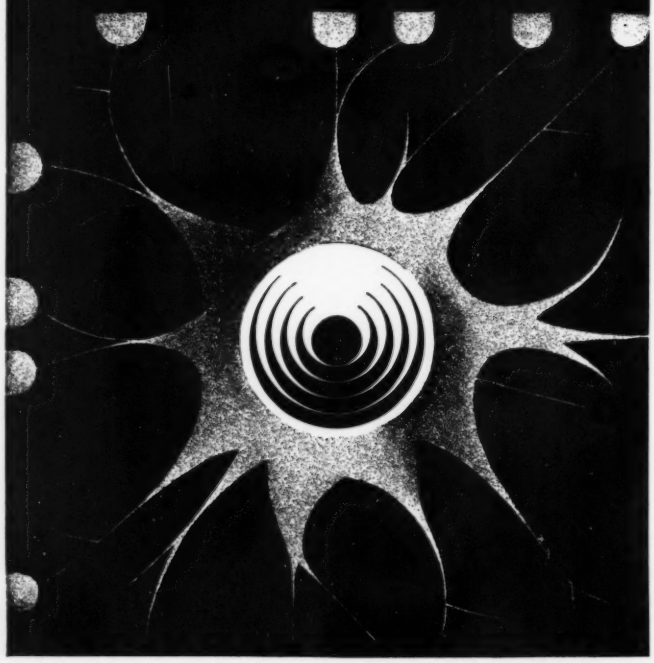
Tofrānil®

brand of imipramine HCl

in depression

lights the road to recovery
in 80 per cent of cases



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Tofrānil
a potent thymoleptic . . .
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Does act effectively in *all* types of depression regardless of severity or chronicity.

Does not inhibit monoamine oxidase in brain or liver; produce CNS stimulation; or potentiate other drugs such as barbiturates and alcohol.

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Tofrānil® brand of imipramine HCl: tablets of 25 mg., bottles of 100. Ampuls for intramuscular administration only, each containing 25 mg. in 2 cc. of solution, cartons of 10 and 50.

References: 1. Ayd, F. J., Jr.: Bull. School Med., Univ. Maryland *44*:29, 1959. 2. Azima, H., and Vispo, R. H.: A.M.A. Arch. Neurol. & Psychiat. *81*:658, 1959. 3. Lehmann, H. E.; Cahn, C. H., and de Verteuil, R. L.: Canad. Psychiat. A. J. *3*:155, 1958. 4. Mann, A. M. and MacPherson, A. S.: Canad. Psychiat. A. J. *4*:38, 1959. 5. Sloane, R. B.; Habib, A., and Batt, U. E.: Canad. M.A.J. *80*:540, 1959. 6. Straker, M.: Canad. M.A.J. *80*:546, 1959. 7. Strauss, H.: New York J. Med. *59*:2906, 1959.

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- potent...**fast relief in acute conditions**
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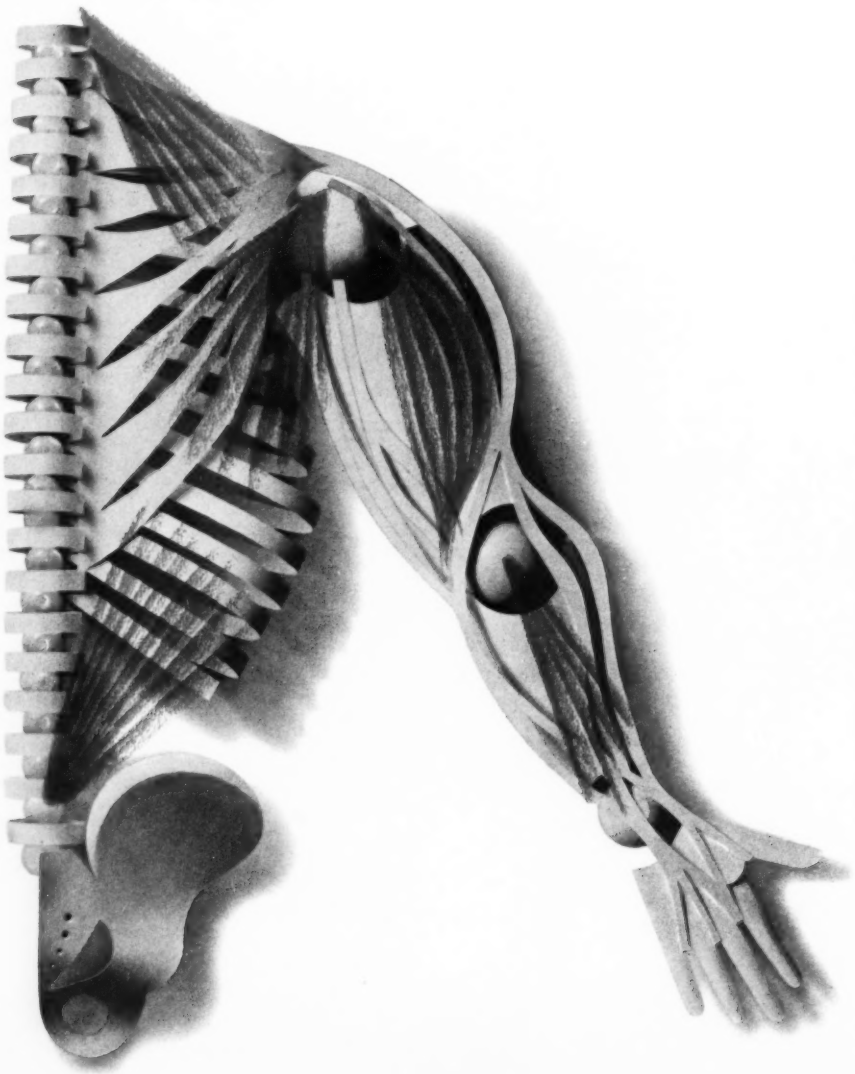

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Kuge, T.: Submitted for publication.

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Wein, A. B.: The Use of Carisoprodol in Orthopedic Surgery and Rehabilitation. Proceedings of the Symposium on The Pharmacology and Clinical Usefulness of Carisoprodol. Wayne State University Press, Detroit, 1959, p. 156.

In a double-blind study, SOMA was reported to be "clinically effective to a highly significant degree." (92 patients.)
Cooper, C. D., and Epstein, J. H.: The Clinical Evaluation of Carisoprodol by a double-blind technique. Ibid. p. 97.

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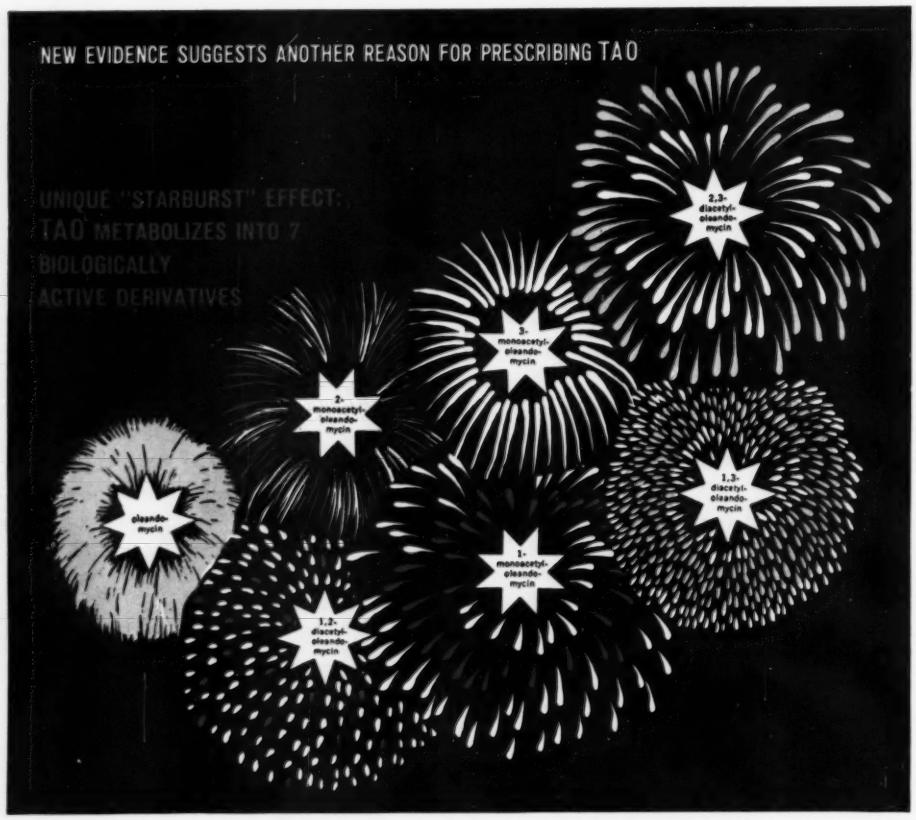
BIBLIOGRAPHY: 1. Berger, F.M., Kletzkin, M., Ludwig, B.J., Margolin, S. and Powell, L. S.: J. Pharm. Exp. Ther. *127*:66 (Sept.) 1959. 2. Leake, Chauncey D.: Proceedings of the Symposium on The Pharmacology and Clinical Usefulness of Carisoprodol, Wayne State University Press, Detroit, 1959, p. 8. 3. Kestler, Otto: Ibid. p. 143. 4. Proctor, Richard C.: Ibid. p. 122. 5. Berger, Frank M., Ibid. p. 25. 6. Goodgold, Joseph, Hohmann, Thomas and Tajima, Toshihiro: Ibid. p. 66. 7. Gammon, George D. and Tucker, Samuel: Ibid. p. 70. 8. Baird, Henry W. and Menta, Dominic A.: Ibid. p. 85. 9. Cooper, C. David and Epstein, Jerome H.: Ibid. p. 97. 10. Korst, Donald R., Gerard, R. W., Miller, James G., Small, Iver F., Graham, I. J. and Winkelman, Eugene I : Ibid. p. 104. 11. Friedman, Arnold P.: Ibid. p. 115. 12. Trimpi, Howard D.: Ibid. p. 150. 13. Wein, Arthur B.: Ibid. p. 156. 14. Olds, James and Travis, R. P.: Ibid. p. 39. 15. Hess, Eckhard H., Polt, James M. and Goodwin, Elizabeth: Ibid. p. 51. 16. Phelps, Winthrop M.: Ibid. p. 131. 17. Spears, Catherine E.: Ibid. p 138. 18. Hyde, L. P. and Hough, Charles E.: Ibid. p. 166. 19. Spears, Catherine E. and Phelps, Winthrop M.: Arch Pediat., 76:287 (July) 1959. 20. Phelps, Winthrop M.: Arch. Pediat., 76:243 (June) 1959. 21. Friedman, Arnold P.: Paper presented at Scientific Meeting, New York State Society of Industrial Medicine, Inc., New York, Sept. 30, 1959. 22. Frankel, Kalman: Ibid. 23. Fransway, Robert L.: Ibid. 24. Kuge, T.: Unpublished reports.

Literature and samples on request WALLACE LABORATORIES, New Brunswick, New Jersey



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1. English, A. R., and McBride, T. J.: Proc. Soc. Exper. Biol. & Med. 100:880 (Apr.) 1959. 2. Celmer, W. D.: Antibiotics Annual 1958-1959, New York, Medical Encyclopedia, Inc., 1959, p. 277. 3. English, A. R., and Fink, F. C.: Antibiotics & Chemother. 8:420 (Aug.) 1958.

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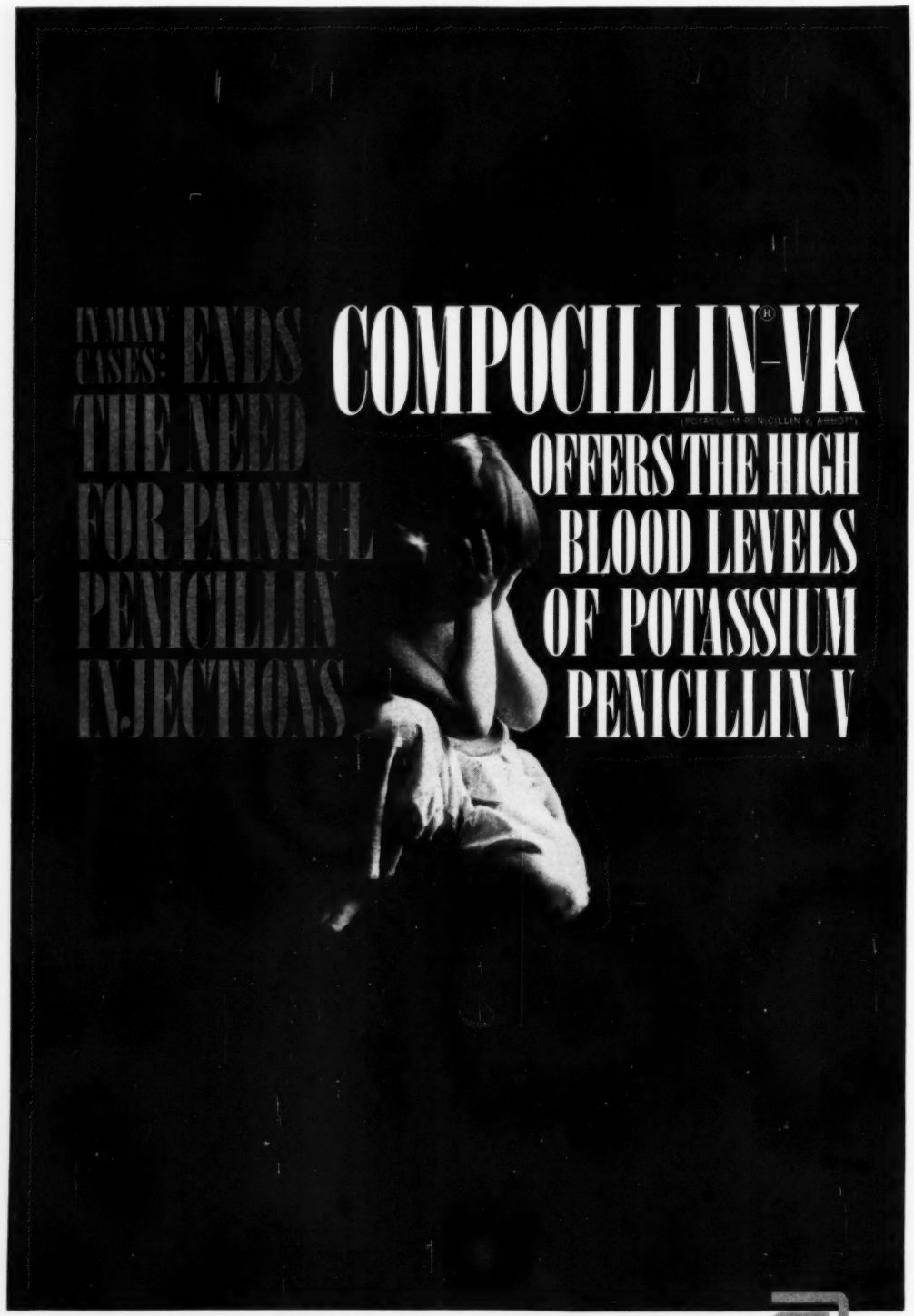

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Supply: Chemipen Tablets of 125 mg. (200,000 u.) and 250 mg. (400,000 u.), bottles of 24 tablets. Chemipen Syrup (cherry-mint flavored, nonalcoholic), 125 mg. per 5 cc., 60 cc. bottles.

*Knudsen, E. T., and Rolinson, G. N.: Lancet 2:1105 (Dec. 19) 1959.

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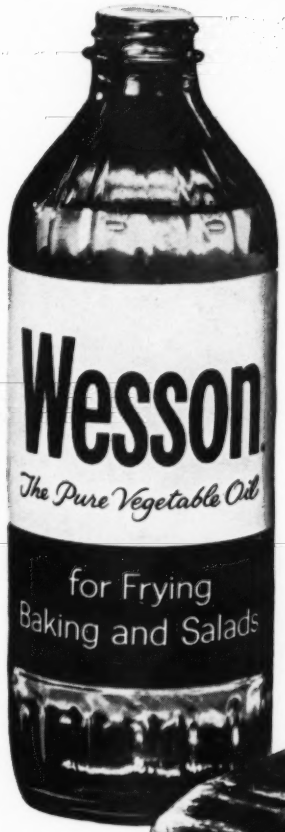
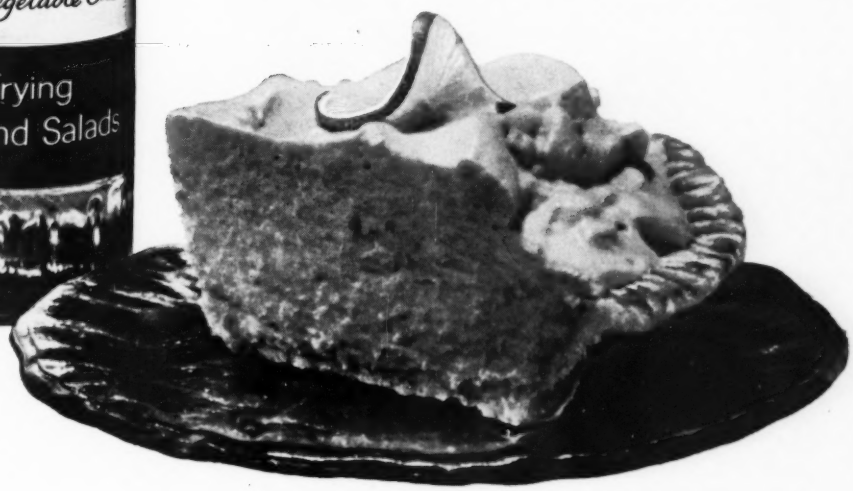


This flaky pie crust, *crisp cookies, Chiffon cakes, biscuits can all be made easily with Wesson. Decrease the calories of pie by preparing with single crust and a fresh fruit or gelatin filling. It is delicious.*

FREE *Wesson recipes are available in quantity for your patients, showing them how to prepare these treats as well as main dishes, vegetables and salads with poly-unsaturated vegetable oil. Request quantity needed from The Wesson People, Dept. N., 210 Baronne St., New Orleans 12, La.*



Wesson satisfies the most exacting appetites. To be effective, a diet must be *eaten* by the patient. The majority of housewives prefer Wesson particularly by the criteria of odor, flavor (blandness) and lightness .of color. (Substantiated by sales leadership for 59 years and reconfirmed by recent tests against the next leading brand with brand identification removed, among a national probability sample.)

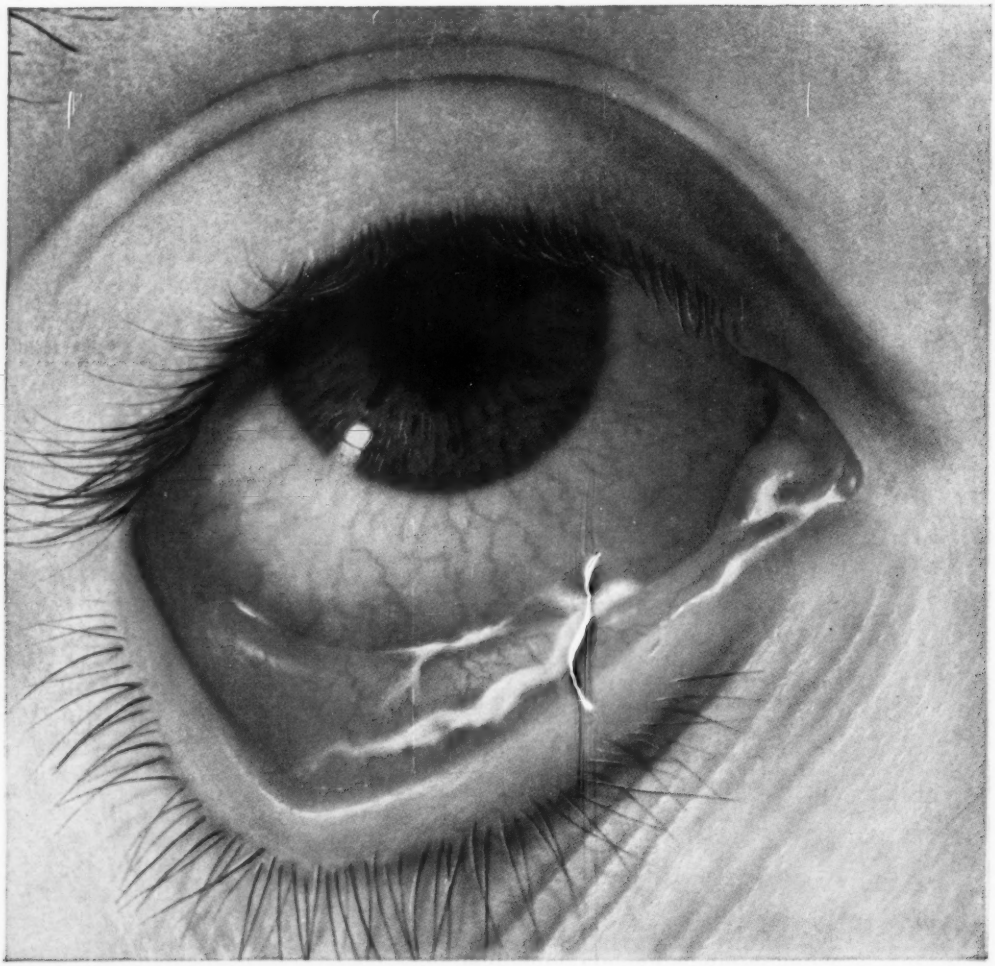
Wesson's Important Constituents

Wesson is 100% cottonseed oil . . . winterized and of selected quality

Linoleic acid glycerides (poly-unsaturated)	50-55%
Oleic acid glycerides (mono-unsaturated)	19-28%
Total unsaturated	75-80%
Palmitic and stearic glycerides (saturated)	20-25%
Phytosterol (predominantly beta sitosterol)	0.4-0.7%
Total tocopherols	0.09-0.12%

Never hydrogenated—completely salt free

Each pint of Wesson contains 437-524 Int. Units of Vitamin E.



no irritating crystals[1] · uniform concentration in each drop[2]

STERILE OPHTHALMIC SOLUTION

NEO-HYDELTRASOL®

PREDNISOLONE 21-PHOSPHATE-NEOMYCIN SULFATE

2,000 TIMES MORE SOLUBLE THAN PREDNISOLONE OR HYDROCORTISONE

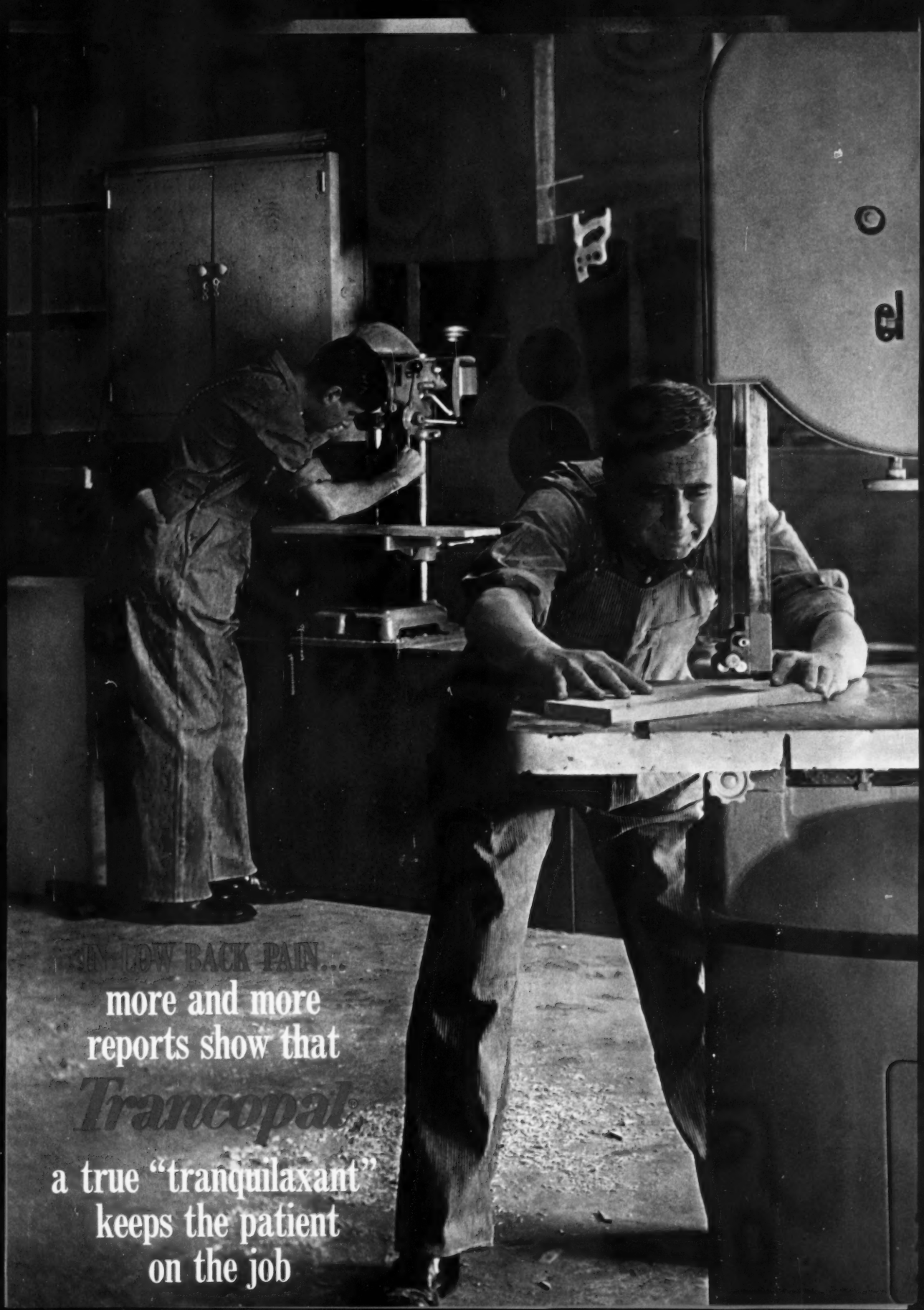
"The solution of prednisolone has the advantage over the suspension in that no crystalline residue is left in the patient's cul-de-sac or in his lashes . . . . The other advantage is that the patient does not have to shake the drops and is therefore sure of receiving a consistent dosage in each drop."[2]

1. Lippmann, O.: Arch. Ophth. **57**:339, March 1957.
2. Gordon, D.M.: Am. J. Ophth. **46**:740, November 1958.

supplied: 0.5% Sterile Ophthalmic Solution NEO-HYDELTRASOL (with neomycin sulfate) and 0.5% Sterile Ophthalmic Solution HYDELTRASOL®. In 5 cc. and 2.5 cc. dropper vials. Also available as 0.25% Ophthalmic Ointment NEO-HYDELTRASOL (with neomycin sulfate) and 0.25% Ophthalmic Ointment HYDELTRASOL. In 3.5 Gm. tubes.

HYDELTRASOL and NEO-HYDELTRASOL are trademarks of Merck & Co., Inc.

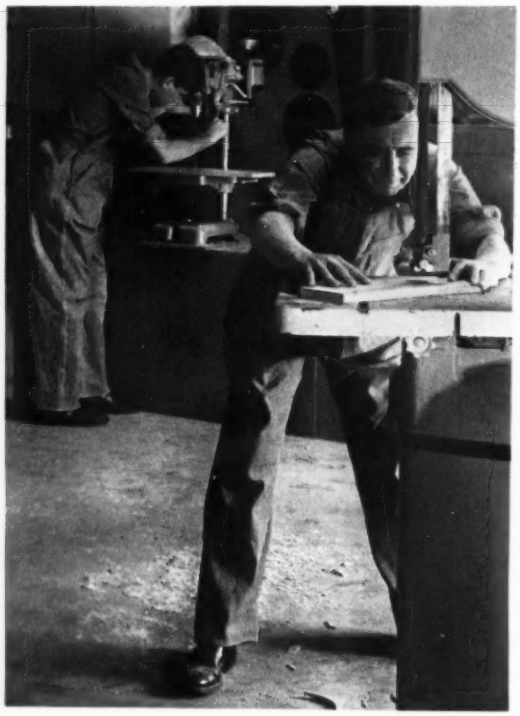
MSD MERCK SHARP & DOHME Division of Merck & Co., Inc., Philadelphia 1, Pa.


IN LOW BACK PAIN...
more and more
reports show that
Trancopal®
a true "tranquilaxant"
keeps the patient
on the job

THE FIRST TRUE "TRANQUILAXANT"

Trancopal®

relieves painful muscle spasm and relaxes the patient



Impressive numbers of patients with low back pain and other musculospastic conditions treated with Trancopal have been freed of symptoms and enabled to return to their usual activities, according to newly published clinical reports. In a recent study by Lichtman,[1] Trancopal brought excellent to satisfactory muscle relaxation to 817 of 879 patients. The patients in this group suffered from skeletal muscle spasm associated with low back pain (361 cases), stiff neck (128 cases), bursitis (177 cases), and other skeletal muscle disorders (213 cases). Side effects were rare (2 per cent of patients), and it was not necessary to discontinue medication in any of the patients. Lichtman comments: "Chlormethazanone [Trancopal] not only relieved painful muscle spasm, but allowed the patients to resume their normal activities with no interference in performance of either manual or intellectual tasks."[2]

When you prescribe Trancopal for musculoskeletal disorders, you can confidently expect that your patients will be relieved of the pain and stiffness. You can be sure of their speedy return to everyday work and recreation.

Mullin and Epifano call Trancopal "...a very effective skeletal muscle spasmolytic."[3] They found that Trancopal brought good to excellent relief to all of 39 patients with skeletal muscle spasm related to trauma, bursitis, rheumatoid arthritis, osteoarthritis, and intervertebral disc syndrome. (No side effects were noted except that one patient had slight dryness of the mouth.)

The pattern is similar in every new series reported: Ganz,[4] DeNyse,[5] Shanaphy[6] and Stough.[7]

Trancopal is a true "tranquilaxant"

Trancopal "...combines the properties of tranquilization and skeletal muscle relaxation with no concomitant change in normal consciousness."[6]

Relieves dysmenorrhea

Trancopal not only is valuable in treating patients with low back pain and other musculoskeletal disorders, but is also very effective in bringing relief from menstrual cramps and discomfort. Shanaphy suggests that Trancopal may help the patient by its combination of muscle relaxant and tranquilizing actions, and he finds that "...the continued use of chlormezanone [Trancopal] as a therapeutic agent in dysmenorrhea is advisable."[6] Trancopal was effective in 82 per cent of his series of 50 patients. In another study, which dealt with 52 adolescent girls and 23 women, Stough[7] reported that Trancopal gave complete or moderate relief in 86.4 per cent.

Alleviates tension

And, of course, Trancopal is also very useful in the treatment of patients in anxiety and tension states. As Ganz says, "...a most valuable drug for relieving tension, apprehension and various psychogenic states... allows the patient to use his energies in a more productive manner in overcoming his basic problems."[4]

Trancopal

a true "tranquilaxant"

that relieves skeletal muscle spasm and relaxes psychogenic tension without troublesome side effects, and keeps the patient on the job.

Indicated for...

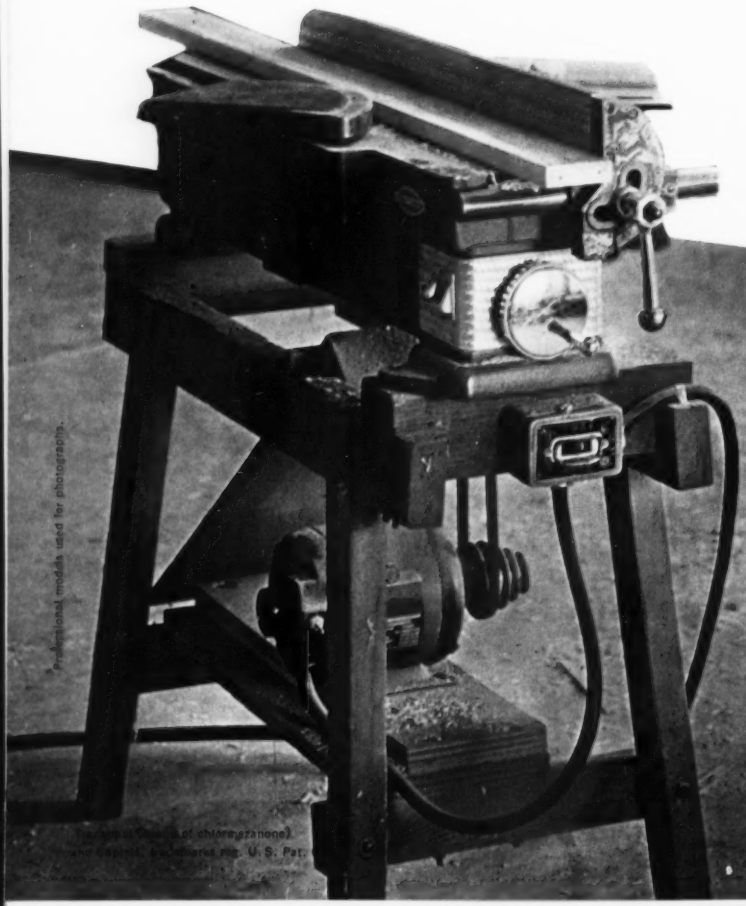
Musculoskeletal disorders		Psychogenic disorders
Low back pain (lumbago)	Fibrositis	Anxiety and tension states
Neck pain (torticollis)	Ankle sprain, tennis elbow	Dysmenorrhea
Bursitis		Premenstrual tension
Rheumatoid arthritis	Myositis	Asthma
Osteoarthritis	Postoperative muscle spasm	Angina pectoris
Disc syndrome		Alcoholism

Now available in two strengths:

Trancopal Caplets®, 100 mg. (peach colored, scored), bottles of 100.

NEW STRENGTH ▶ Trancopal Caplets, 200 mg. (green colored, scored), bottles of 100.

Dosage: Adults, 100 or 200 mg. orally three or four times daily. Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.



Professional models used for photographs.

References: 1. Lichtman, A. L.: Scientific Exhibit, meeting of the International College of Surgeons, Miami Beach, Fla., Jan. 4-7, 1959. 2. Lichtman, A.L.: *Kentucky Acad. Gen. Pract. J.* 4:28, Oct., 1958. 3. Mullin, W. G., and Epifano, Leonard: *Am. Pract. & Digest Treat.* 10:1743, Oct., 1959. 4. Ganz, S. E.: *J. Indiana M. A.* 52:1134, July, 1959. 5. DeNyse, D. L.: *M. Times* 87:1512, Nov., 1959. 6. Shanaphy, J. F.: *Current Therap. Res.* 1:59, Oct., 1959. 7. Stough, A. R.: *J. Oklahoma M. A.* 52:575, Sept., 1959.

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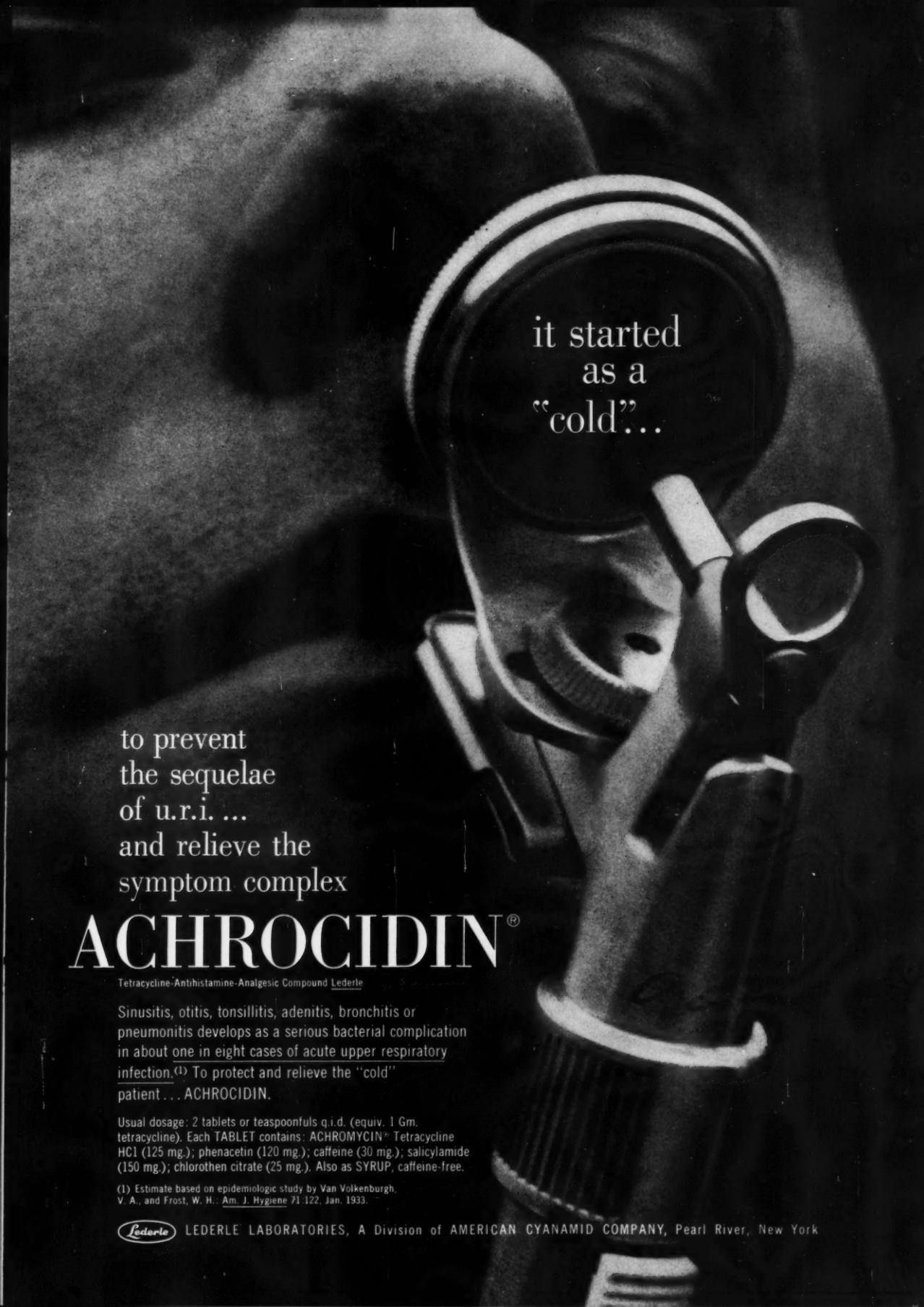


to prevent
the sequelae
of u.r.i. ...
and relieve the
symptom complex

ACHROCIDIN®

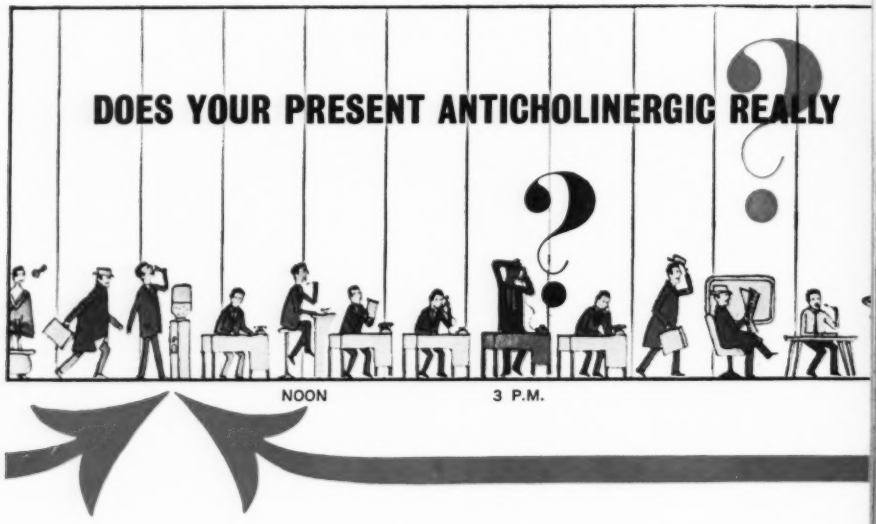
Tetracycline-Antihistamine-Analgesic Compound Lederle

Sinusitis, otitis, tonsillitis, adenitis, bronchitis or pneumonitis develops as a serious bacterial complication in about one in eight cases of acute upper respiratory infection.(1) To protect and relieve the "cold" patient . . . ACHROCIDIN.

Usual dosage: 2 tablets or teaspoonfuls q.i.d. (equiv. 1 Gm. tetracycline). Each TABLET contains: ACHROMYCIN® Tetracycline HCl (125 mg.); phenacetin (120 mg.); caffeine (30 mg.); salicylamide (150 mg.); chlorothen citrate (25 mg.). Also as SYRUP, caffeine-free.

(1) Estimate based on epidemiologic study by Van Volkenburgh, V. A., and Frost, W. H.: Am. J. Hygiene 71:122, Jan. 1933.

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York



The test—you might say the acid test—of an anticholinergic is simple: will it protect your patient from hyperacidity around the clock, **even while he sleeps.** The weakness of t.i.d. or q.i.d. preparations is well recognized; but even some "b.i.d." encapsulations may be unreliable. McHardy, for instance, found a "widely variable duration of action, definitely less than that anticipated" in the "sustained," "delayed," and "gradual release" anticholinergics he studied.[1]

COMPARE THE DATA ON ENARAX . . . the new combination of an **inherently** long-acting anticholinergic (oxyphencyclimine) and Atarax, the non-secretory tranquilizer. Note the effectiveness of oxyphencyclimine:

OBSERVE THE OXYPHENCYCLIMINE REPORTS . . .

McHardy: "[Oxyphencyclimine] has proved to be an excellent sustained-action anticholinergic in our study of this agent over a period of eighteen months."[1]

Kemp: ". . . for the majority of patients, one tablet every 12 hours provided adequate control. This characteristic long action . . . may constitute an advantage of this drug as compared to coated 'long-acting' preparations of other compounds."[3]

Add Atarax to this 12-hour anticholinergic. The resulting combination—ENARAX—now gives relief from emotional stress, in addition to a reduction of spasm and acid. Atarax does not stimulate gastric secretion. No serious adverse clinical reaction has ever been documented with Atarax.

LOOK AT THE RESULTS WITH ENARAX[4,5]:

Does the medication you now prescribe assure you of all these benefits? If not, why not put your next patient with peptic ulcer or G.I. dysfunction on therapy that **does.**

ENARAX®

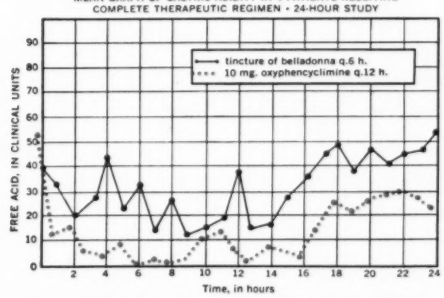
(oxyphencyclimine plus ATARAX®)

A SENTRY FOR THE G.I. TRACT

PROVIDE CONTINUOUS CONTROL OF ACID SECRETION?

"Prolonged periods of achlorhydria" after 10 mg. oxyphencyclimine q. 12 h.[2]

MEAN GRAPH OF GASTRIC ACIDITY IN 4 PATIENTS RECEIVING COMPLETE THERAPEUTIC REGIMEN · 24-HOUR STUDY



Clinical Diagnosis: Peptic Ulcer—Gastritis—Gastroenteritis—Colitis—Functional Bowel Syndrome—Duodenitis—Hiatus Hernia (symptomatic)—Irritable Bowel Syndrome—Pylorospasm—Cardiospasm—Biliary Tract Dysfunctions—and Dysmenorrhea.

Clinical Results: Effective in over 92% of cases.

As for Safety: "Side reactions were uncommon, usually no more than dryness of the mouth...."[4]

Each ENARAX tablet contains:

Oxyphencyclimine HCl ..... 10 mg.
Hydroxyzine (ATARAX®) ..... 25 mg.

Dosage: One-half to one tablet twice daily—preferably in the morning and before retiring. The maintenance dose should be adjusted according to therapeutic response. Use with caution in patients with prostatic hypertrophy and with ophthalmological supervision only in glaucoma.

Supplied: In bottles of 60 black-and-white scored tablets.

References: 1. McHardy, G., et al.: J. Louisiana M. Soc. 111:290 (Aug.) 1959. 2. Steigmann, F.: Study conducted at Cook County Hospital, Chicago, Illinois, in press. 3. Kemp, J. A.: Antibiotic Med. & Clin. Therapy 6:534 (Sept.) 1959. 4. Leming, B. H., Jr.: Clin. Med. 6:423 (Mar.) 1959. 5. Data in Roerig Medical Department files.

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FAMOUS MICRONITE FILTER

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First, finest natural tobaccos. Kent uses *only* the finest natural tobaccos—ripe, golden leaves—which, when shredded into tiny strands and carefully blended, produce a real tobacco taste.

Second, Kent's famous Micronite filter which contains a remarkable series of flavor channels. The rich taste of natural tobaccos flows through with a free and easy draw. The Kent filter is not too long, not too short, not too tight—smokers get every delicate shading of flavor of Kent's finest natural tobaccos.

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Just one prescription for Engran Term-Pak
SQUIBB VITAMIN-MINERAL SUPPLEMENT *(270 tablets)*
calling for just one tablet per day will carry her through term to the six-week postpartum check-up. Thus, you help to assure a nutritionally perfect pregnancy, while providing the convenience and economy of the re-usable Term-Pak. Engran is also available in bottles of 100 tablets.

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per 18 gram slice

Hollywood®
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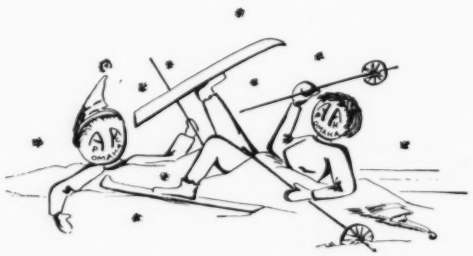

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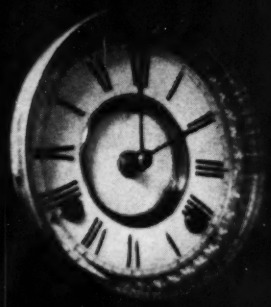

the clock strikes 2

and your ulcer patient sleeps undisturbed

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oxyphencyclimine HCl, 10 mg. tablets

2 tablets daily—'round-the-clock relief from ulcer and other G I disorders.

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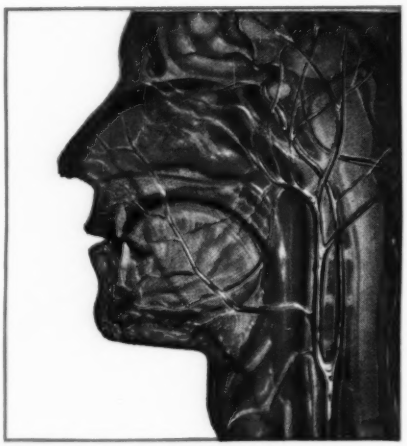
Pfizer *Science for the world's well-being™*

reaches all nasal and paranasal membranes *systemically*[1]



Pharmacologically balanced formula for prompt symptomatic relief

- in nasal and paranasal congestion
- in sinusitis and postnasal drip
- in allergic reactions of the upper respiratory tract

Triaminic*[2,3] *is safer and more effective than topical medication

- transported systemically to *all* respiratory membranes
- provides longer-lasting relief
- presents no problem of rebound congestion
- avoids "nose drop addiction"

Each Triaminic timed-release Tablet provides:
Phenylpropanolamine HCl.....50 mg.
Pheniramine maleate.....25 mg.
Pyrilamine maleate.....25 mg.

Dosage: 1 tablet in the morning, midafternoon and at bedtime. In postnasal drip, 1 tablet at bedtime is usually sufficient.

Each timed-release Triaminic Juvelet® provides: ½ the formulation of the Triaminic Tablet.

Dosage: 1 Juvelet in the morning, midafternoon and at bedtime.

Each tsp. (5 ml.) of Triaminic Syrup provides: ¼ the formulation of the Triaminic Tablet.

Dosage (to be administered every 3 or 4 hours): *Adults* — 1 or 2 tsp.; *Children 6 to 12* — 1 tsp.; *Children 1 to 6* — ½ tsp.; *Children under 1* — ¼ tsp.

1. Fabricant, N. D.: E.E.N.T. Monthly *37*:460 (July) 1958.
2. Lhotka, F. M.: Illinois M. J.: *112*:259 (Dec.) 1957.
3. Farmer, D. F.: Clin. Med. *5*:1183 (Sept.) 1958.

Relief is prompt and prolonged because of this special timed-release action:

first — the outer layer dissolves within minutes to produce 3 to 4 hours of relief

then — the core disintegrates to give 3 to 4 *more* hours of relief

the leading oral nasal decongestant...

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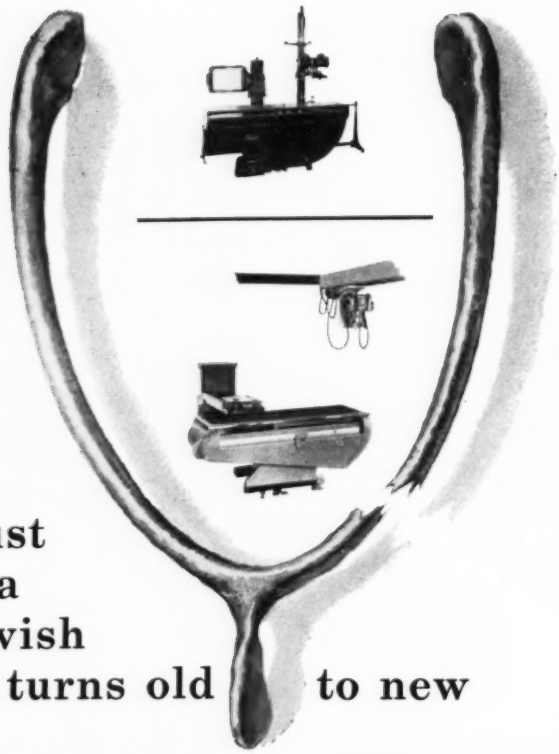

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WHY IS DIABETES IN INFANTS SO DIFFICULT TO DIAGNOSE?

Because of the infrequency of the disease in this age group, its sudden onset, the profusion of inconsistent presenting symptoms, and because the accompanying symptoms of anorexia and vomiting are also characteristic symptoms of many other ills of infancy.

Source: Traisman, H. S.; Boehm, J. J., and Newcomb, A. L.: Diabetes *8*:289, 1959.

for those pediatric puzzlers..."A routine urinalysis and blood sugar should be done whenever the possibility of diagnosing diabetes is entertained."*

the standardized urine-sugar test for reliable quantitative estimations

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COLOR-CALIBRATED CLINITEST® BRAND Reagent Tablets

84060

DIABETES MELLITUS AT AGES 1 TO 5

Order of Frequency of Presenting Symptoms in 110 Patients

Symptoms	No. of Patients	Per cent of total group
Polyuria	93	84.5
Polydipsia	89	81.0
Weight loss	47	42.7
Polyphagia	28	25.4
Anorexia	16	14.5
Lethargy	14	12.7
Enuresis	7	6.4
Vomiting	5	4.5
Irritability	3	2.7
"Craving for sweets"	3	2.7
"Sticky diaper"	3	2.7
"Strong odor to urine"	2	1.8
Glycosuria	2	1.8
Hypoglycemia	2	1.8
Personality change	1	0.9
Boils	1	0.9
Headache	1	0.9
Abdominal cramps	1	0.9

Adapted from Traisman, H. S.; Boehm, J. J., and Newcomb, A. L.*

- **full-color calibration, clear-cut color changes**
- **established "plus" system covers entire critical range**
- **standard blue-to-orange spectrum**
- **standardized, laboratory-controlled color scale**
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IN ANXIETY—RELAXATION RATHER THAN DROWSINESS

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brand of trifluoperazine

'Stelazine' has little if any soporific effect. "... patients who reported drowsiness as a side effect mentioned that they did not fall asleep when they lay down for a daytime nap. It is quite possible that, in some instances, 'drowsiness' was confused with unfamiliar feelings of relaxation."[1]

'Stelazine' is unique among tranquilizers because it relieves anxiety whether expressed as agitation and tension or as apathy, listlessness and emotional fatigue.

Available for use in everyday practice: Tablets, 1 mg., in bottles of 50 and 500; and 2 mg., in bottles of 50.

1. Goddard, E.S.: in *Trifluoperazine, Further Clinical and Laboratory Studies*, Philadelphia, Lea & Febiger, 1959.

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